

3rd Party Market Place

Integration

ETR, DCE-IT

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Date : 1/22/2018

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1. Overview

Introduction

3rd Party Marketplace product is projected for a business model where HP will sell its products on marketplaces, such as eBay, Amazon, and fulfill the orders using its own fulfillment solution, developed for HP’s ETR store. In this project, HP’s ETR store infrastructure will be integrated with a “middleman” (Channel Advisor) which will take care of the communication between HP and the marketplaces.

Changes being introduced as part of the FY17 Release5.5 project from ETR end are

* Order to delivery
* Payment to reconciliation
* Reverse logistics (Refund, [Miscellaneous credit](http://c2t14302.itcs.hpicorp.net/browse/HPEUS-1191))
* CAAS Order Search
* Inventory Management
* CAAS Logs Search

Scope

* Fetch payment cleared, un-shipped and un- exported orders based on profile ID from CA.
* Filter the CA orders NOT processed before in ETR and do the basic OMS validations and WCS validations.
* If all these validations are cleared, and inventory is available in ETR, order is created, OMS.
* Successfully processed orders are exported in CA.
* If for any reason, order validations fail in ETR, the same order is cancelled in CA and exported. Such orders will NOT be created in OMS.
* Only PayPal payment is accepted for CA orders.
* Create order, cancel order, refund, shipment, fraud decline customer email notifications have been bypassed for CA orders.
* Return and Misc. are supported at item level refund for eBay.
* Inventory full update to CA once a day
* Delta inventory update to CA in given interval.
* Agent can mask the inventory in Web client and the same is updated in CA.
* New CAAS order search in Sterling Call Center.
* New CAAS logs search in Sterling Call Center.

Definitions and Abbreviations

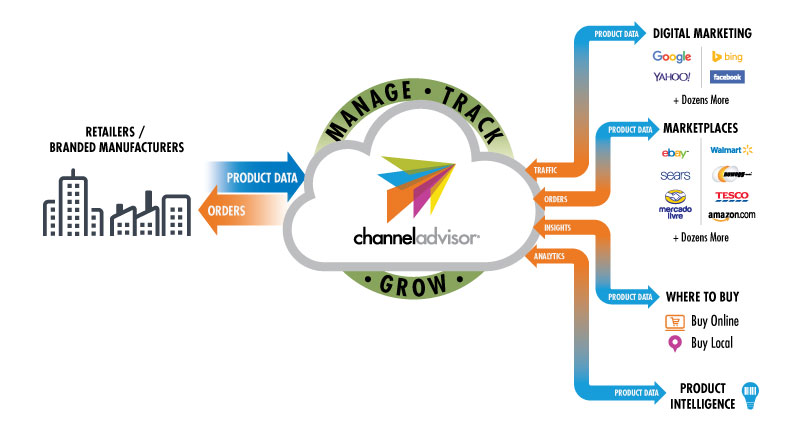
|  |  |
| --- | --- |
| Acronym | Remarks |
| CA, CAAS | Channel Advisor |
| MP | Market place |

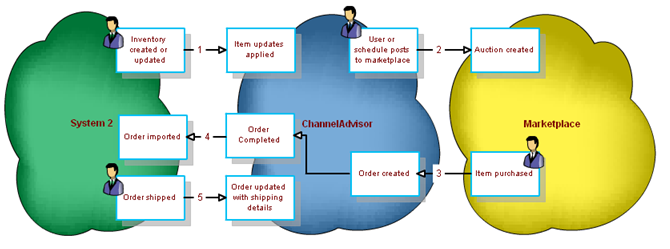
## Assumptions / Decisions Taken

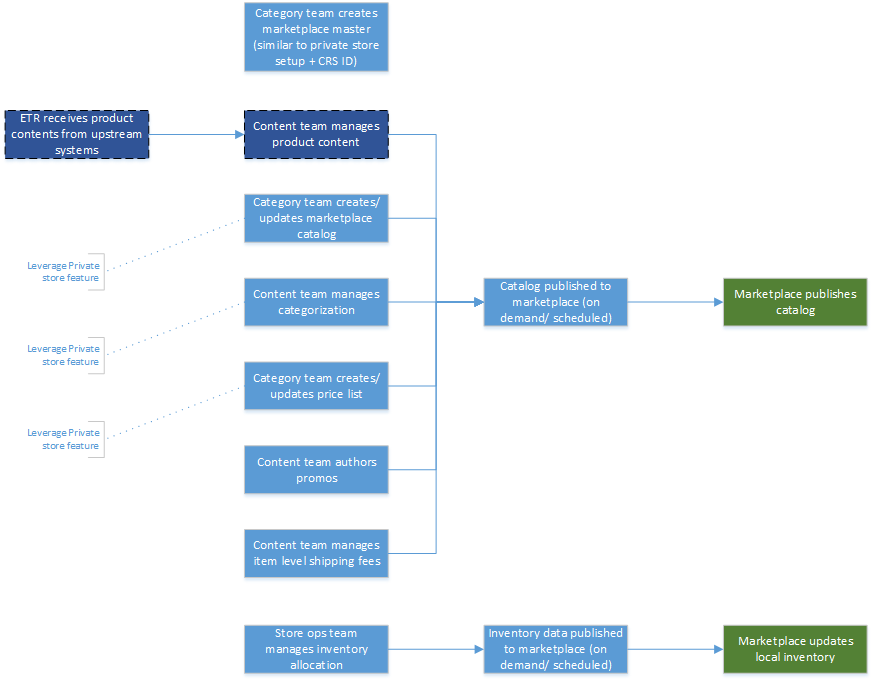
* As RMS is happening before ETR order creation, RMS holds CA order number as Order number, corresponding ETR order number will not be stored in RMS.
* There will be NO remorse/holds/charge failure holds for CA sales orders created in OMS.
* Validation failed CA orders will NOT be created in OMS.
* CA orders will NOT be backordered. Instead they will be cancelled in OMS and cancelled & exported in CA.
* Payment capture is bypassed for CA sales & return orders.
* There will be NO fraud holds for CA orders in ETR.
* ETR will update RMA# as part of CA refund transaction. RMA# is stored in CA sellerAdjustmentId field.
* ETR will validate CA Order price after discount only, individual promotions are not validated.
* ETR will validate based against the CA catalog Feed Data. ETR will not validate real time with promotion engine.
* Marketplace cancelled orders are not automatically cancelled in ETR. Marketplace cancelled orders will have to cancelled manually in ETR.
* CA will receive below reason codes for
  + Cancel CA order due to validation Failure cancel – GeneralAdjustment
  + Cancel CA Order due to inventory Failure cancel – ItemNotAvailable
  + Refund for Return for credit order – CustomerReturnedItem
  + Refund for Misc. Credit – GeneralAdjustment

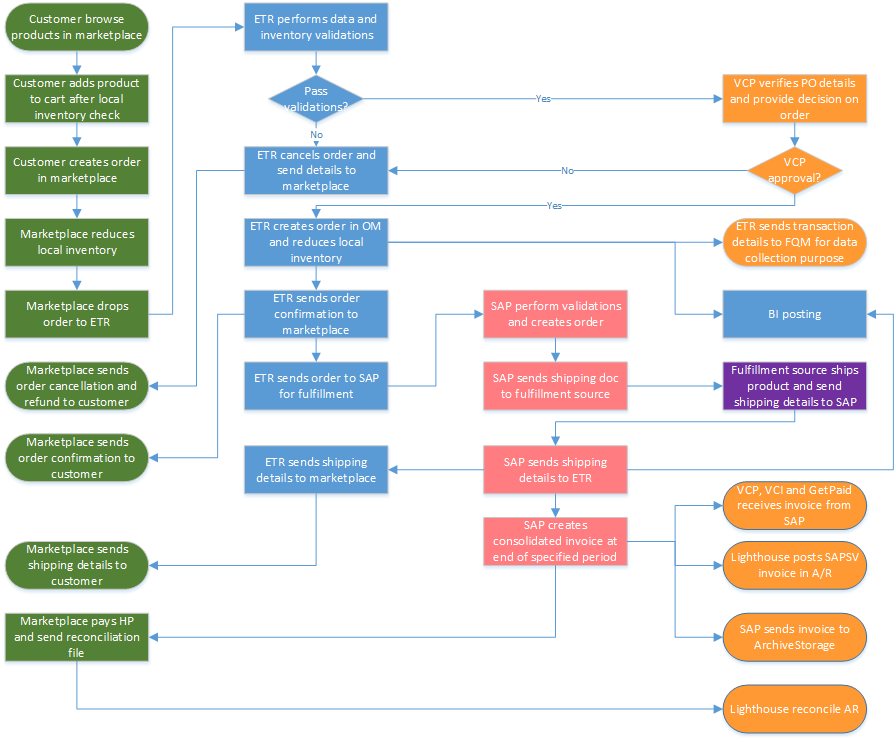
Channel Advisor – HHO Integration

Business Flow chart









CA API Services

They offer the following API services

* **Inventory** – The Inventory Service provides methods to manipulate products inventory in a Channel-Advisor account.
  + Inventory refers to the product and stock info
  + They can be pushed through API to Channel Advisor
* **Order** – The Order Service contains public web methods for retrieving non-exported orders and marking orders as exported. An order represents an entire purchase commitment from a buyer to a Channel-Advisor seller.
* **Shipping** – The Shipping Service is used to update shipping information into a Channel Advisor account. If there are other items in the order, CA will know items not included in the call will be outstanding - the order will be considered "Partially Shipped" until all items have been satisfied with shipping calls.
* **Cancellations & Refunds** –For pre-shipment orders: Channel Advisor considers any adjustment which returns money a cancellation. For post-shipment orders: Channel Advisor considers any adjustment which returns money a refund.

Data Transfers

* FTP upload to channel advisor
* Using Channel Advisor API
* Manual upload or creation in channel advisor console

Following are the recommended data flow strategy

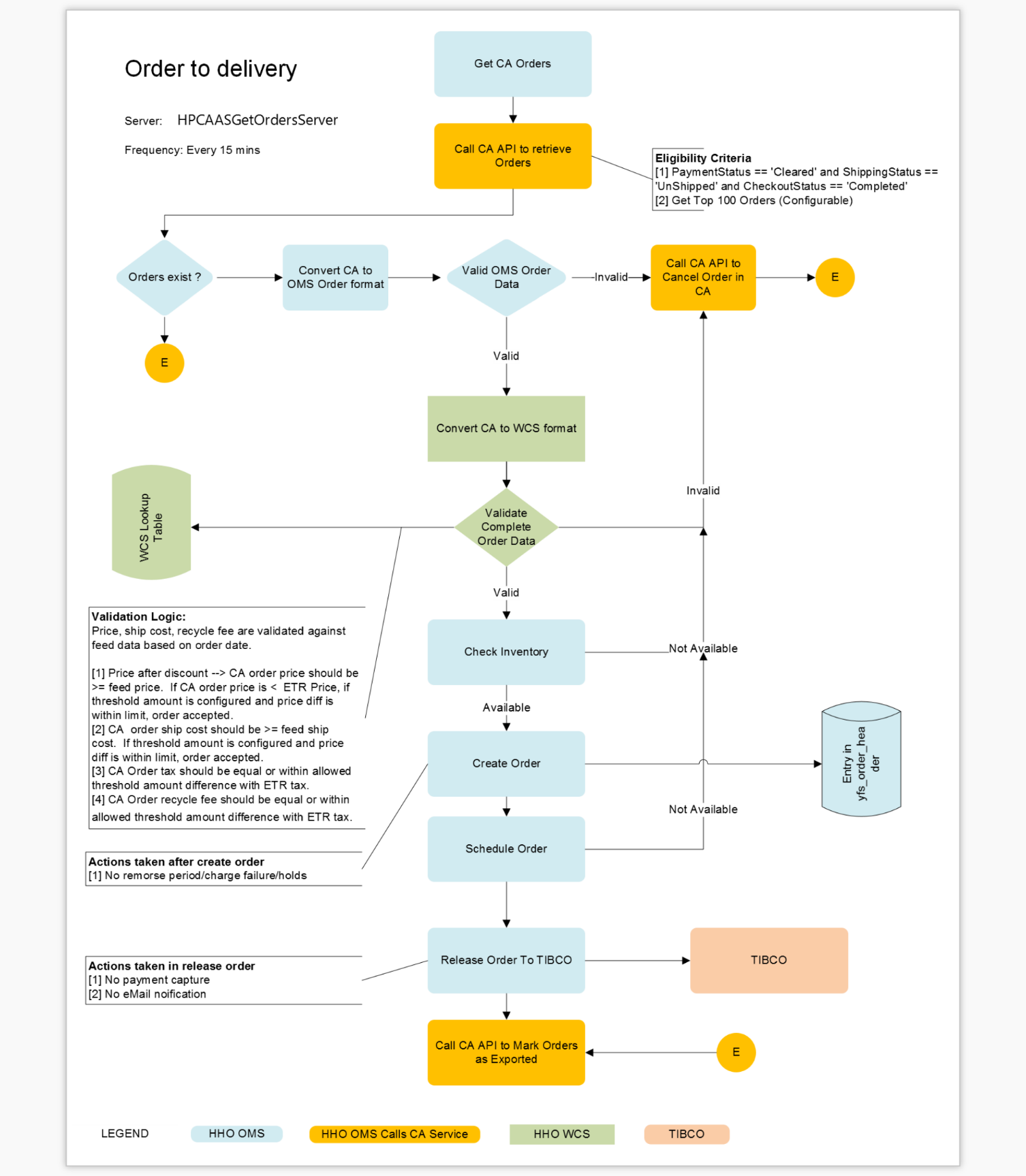
|  |  |  |  |
| --- | --- | --- | --- |
| Data | Frequency | Preferred Method | Implemented Methods |
| Full Product Data | Once a Week | FTP | FTP |
| Delta Product Data | One in a day | FTP | FTP |
| Delta Price Changes | Hourly | API | API |
| Delta Stock Change | 10 Mins | API | API |
| Orders | 15 Mins | API | API |
| Shipment & Refunds | N/A (event based) | API | API |

ETR Integration

**The Order and Fulfillment retrieval and update process usually flows something like this with our REST API:**

1. Order is placed on a marketplace
2. Order is retrieved from the marketplace by Channel-Advisor
   1. Channel-Advisor will acknowledge and confirm receipt of the order as necessary within the time frame required by the marketplaces
   2. Orders are retrieved from marketplaces every 15 minutes
3. Client will retrieve a group of orders that haven't already been imported into their system
4. Once those orders have been imported into their system successfully, client should mark them as Exported in our system (each order must be marked as exported individually)
5. Orders may be completed in three ways:

* SHIP the Order
* CANCEL the Order
* REFUND the Order

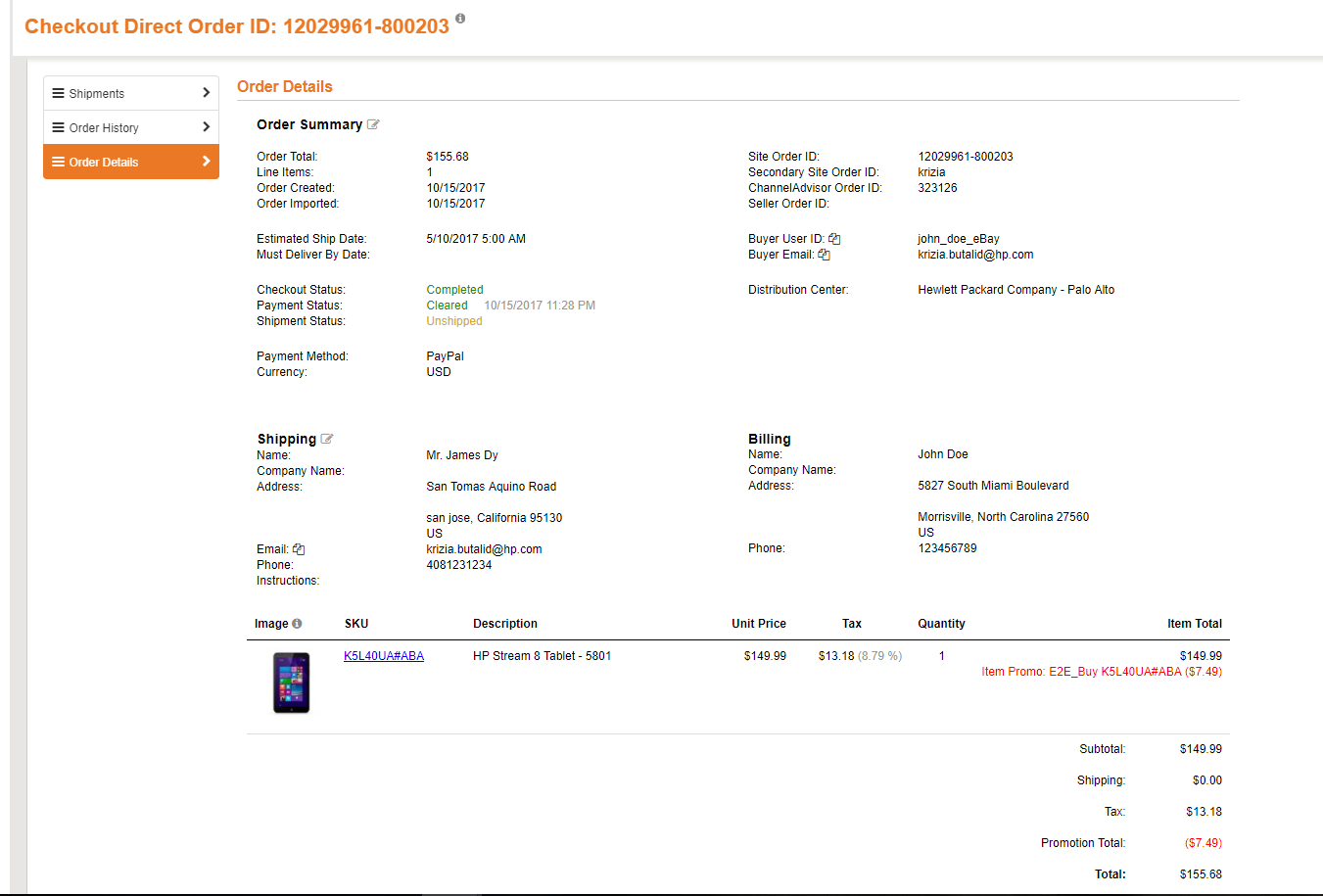


|  |
| --- |
| Request URL |
| GET https://api.channeladvisor.com/v1/Orders?access\_token=xxxxxxxxxx&$orderby=CreatedDateUtc asc&$top=100&exported=false&$count=true&$filter=PaymentStatus eq 'Cleared' and ShippingStatus eq 'UnShipped' and CheckoutStatus eq 'Completed'&$expand=Items($expand=Promotions),Fulfillments,CustomFields |

|  |  |  |  |
| --- | --- | --- | --- |
| Group | Transaction/Service Name  (Server Name) | Type | Description |
| CAAS | HPCAASGetOrdersServer | New Task-based time triggered transaction | To get orders which are payment cleared, checkout status completed and unshipped from CA |

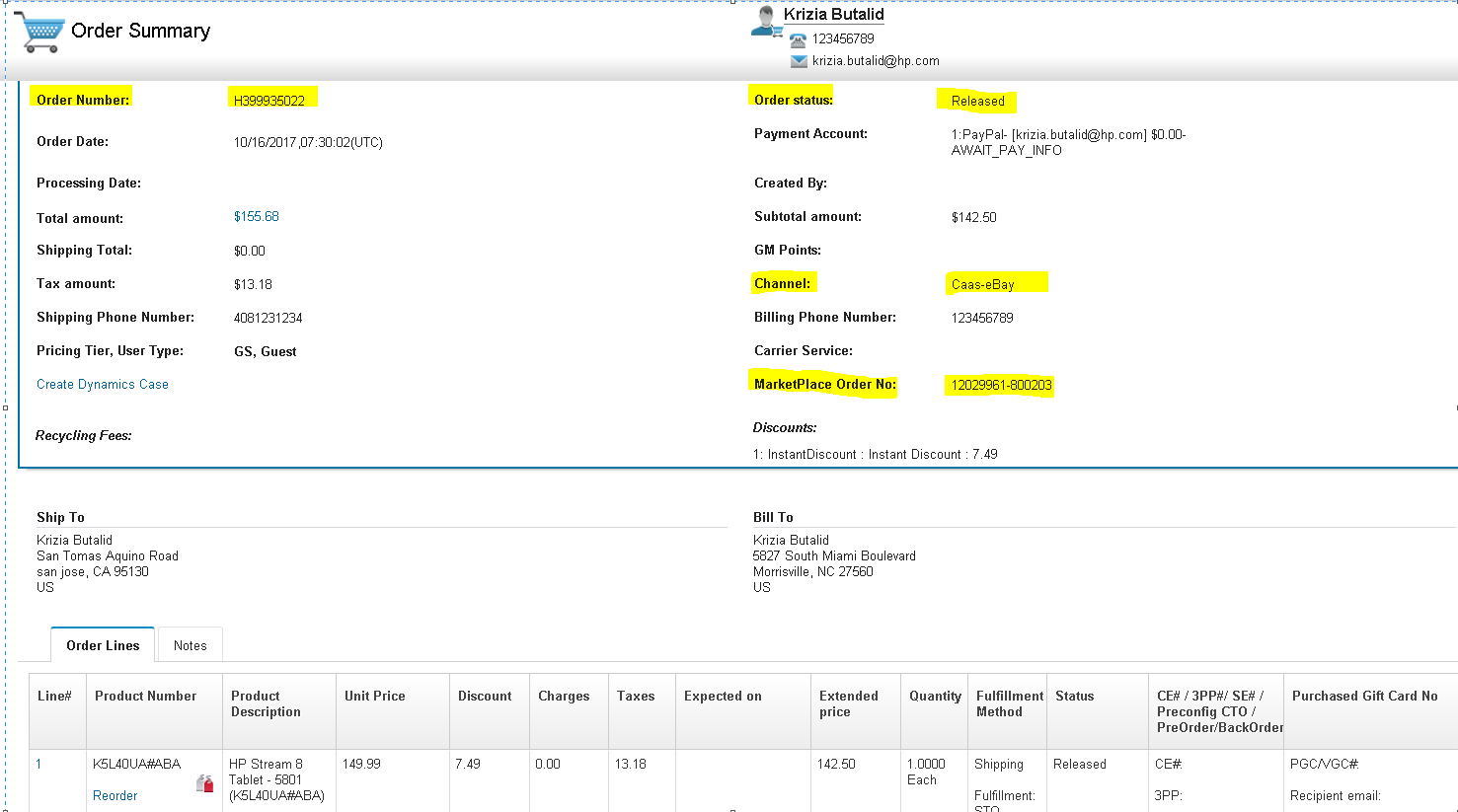
* + 1. Order Created in CA (by Market Place)

Below is the screenshot of a sample CA order which we created by calling CA rest API.



* + 1. Same CA Order Created in OMS

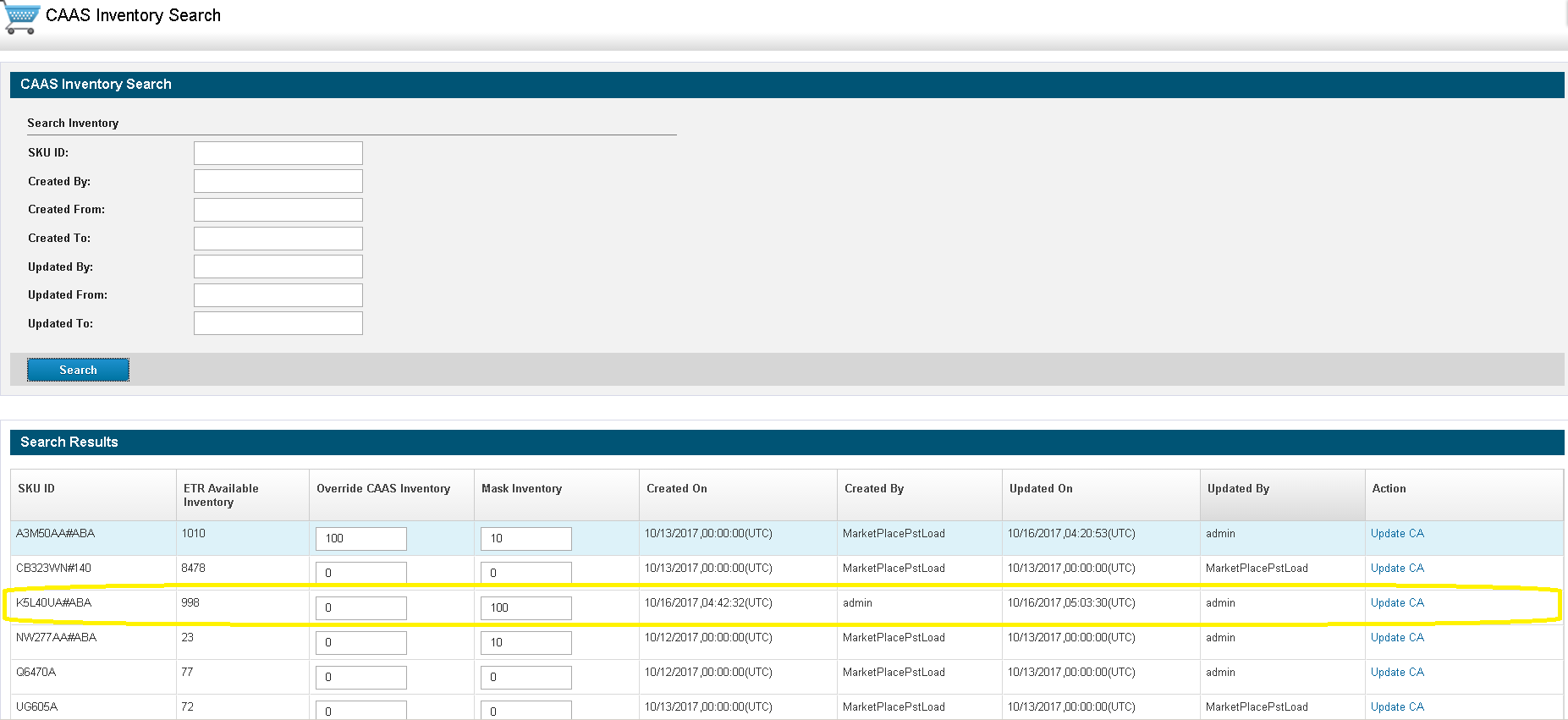
The same CA order shown above is pulled in ETR and once all the validations & inventory checks are cleared, an order is created, scheduled and released in OMS successfully. A screenshot of a successfully released order is shown below from call center.



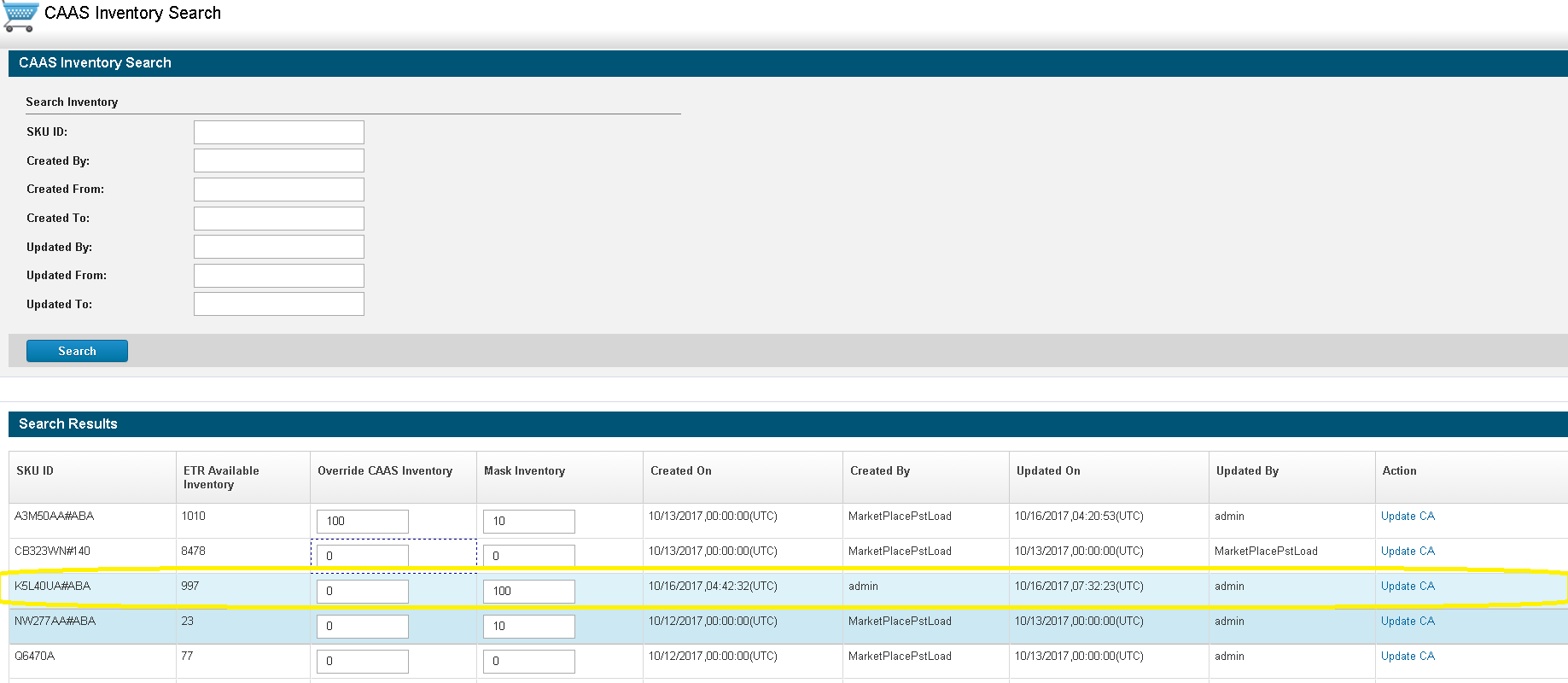
* + 1. Inventory Adjustment after CA Order Successfully released

The item’s ETR available inventory is deducted internally by the system.

Before CA order is created

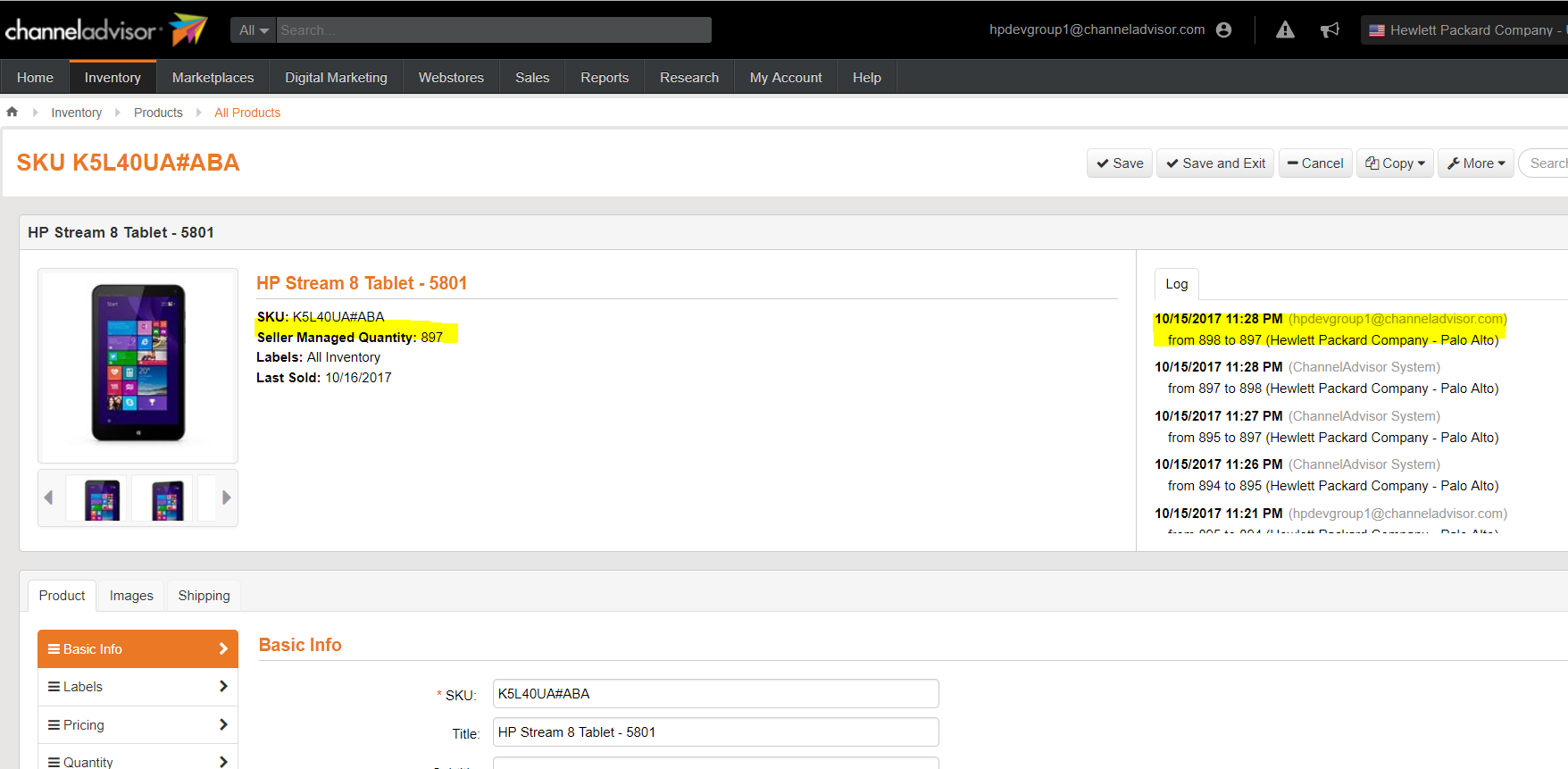


After CA Order is released

****

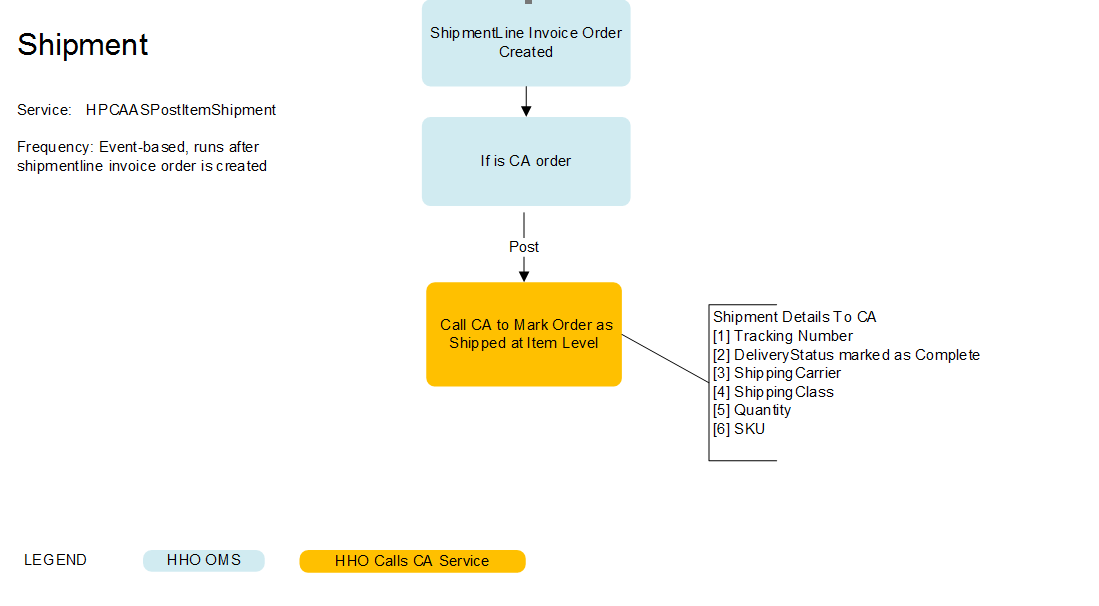
* + 1. Adjusted inventory reflection in CA

When RTAM(OP1) runs, the value after deducting Mask Inventory from item’s ETR Available Inventory is submitted to CA to update the inventory in CA. CA handles the deduction of any open and pending transactions from the submitted quantity value and sets the remaining as the inventory quantity.



* + 1. Shipment flow

HPCAASPostItemShipment is triggered once CA order is changed to Shipment line invoiced status. It posts the shipment details of the CA order to CA. One shipment or tracking number per line item. CA can determine whether the request is for partial or full shipment. CA allows to update the shipment details of CA order items if CA order is fully shipped.



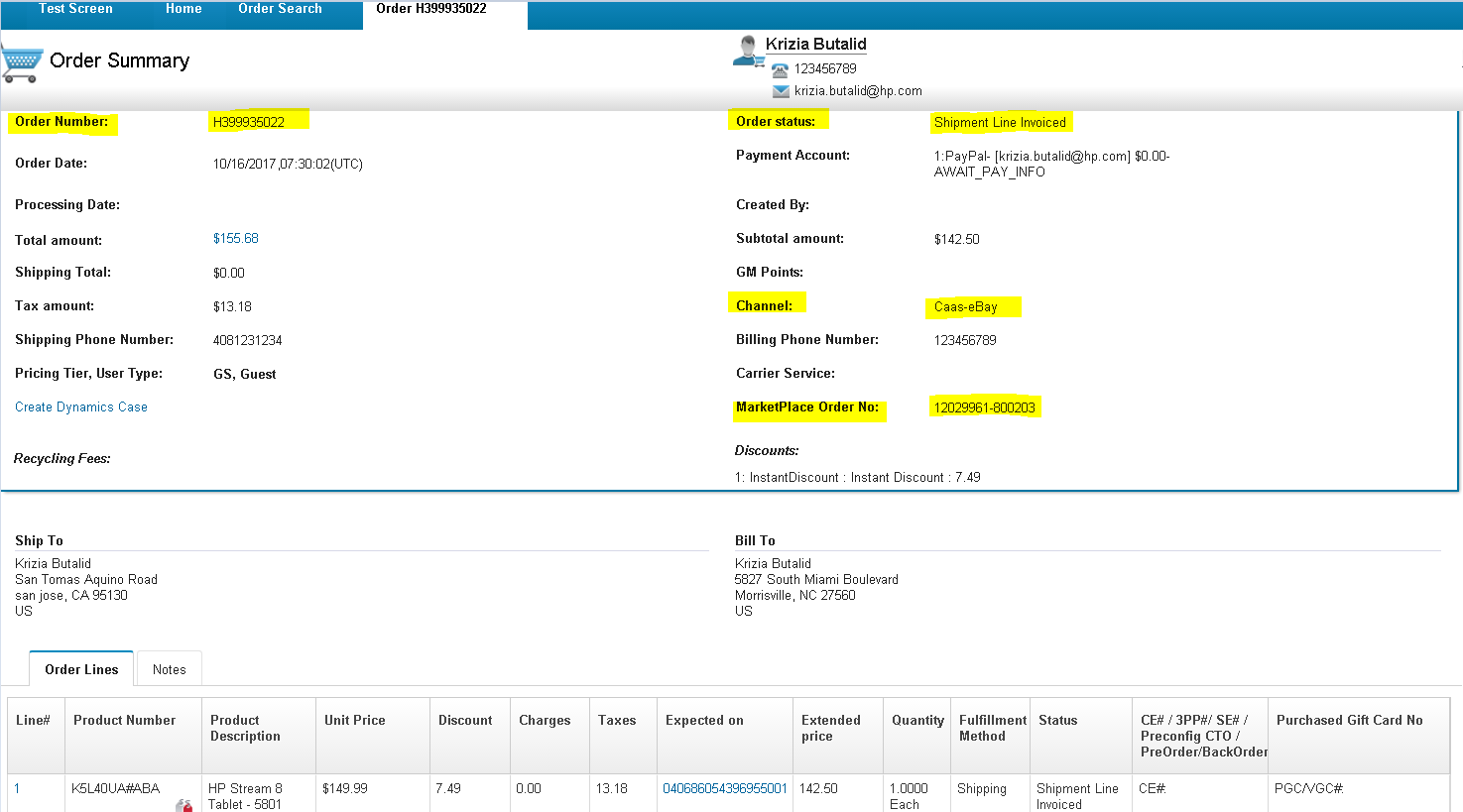
Shipment Post Request for Every Product

|  |
| --- |
| Request URL |
| POST https://api.channeladvisor.com/v1/Orders(123456)/Ship?access\_token=xxxxxxxxxx |

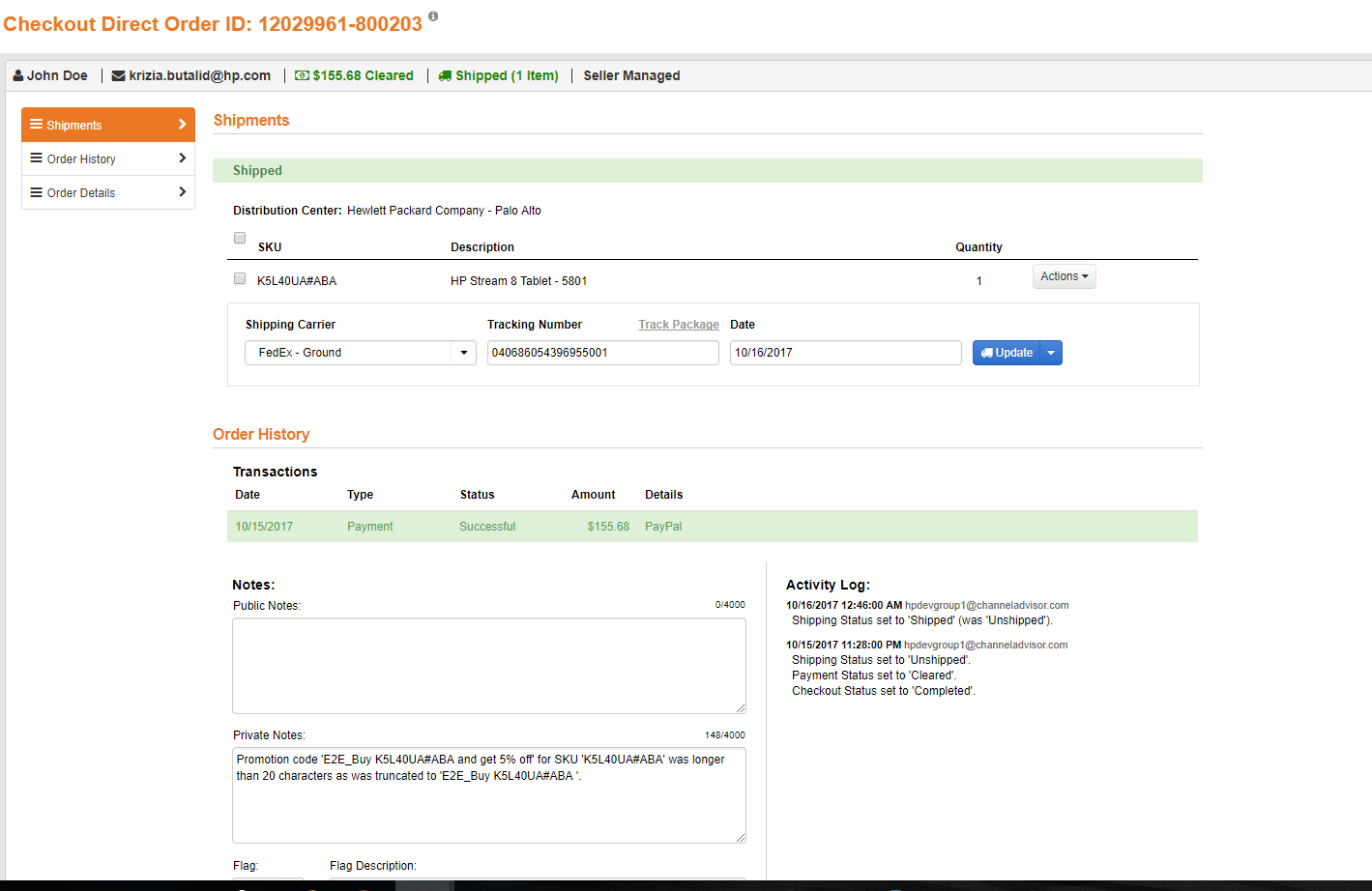
|  |
| --- |
| Request Body |
| {  "Value":{  "TrackingNumber": "1Z 999 AA1 01 2345 6784",  "DistributionCenterID": 0,  "DeliveryStatus": "Complete",  "ShippingCarrier": "UPS",  "ShippingClass": "Ground",  "Items":[  {  "Sku":"L2749A#BGJ",  "Quantity":2  }]  }  } |

|  |  |  |  |
| --- | --- | --- | --- |
| Group | Transaction/Service Name  (Server Name) | Type | Description |
| CAAS | HPCAASPostItemShipment | New Event – based service | To post shipment details of CA Order at item level |

* + 1. Shipment update in OMS

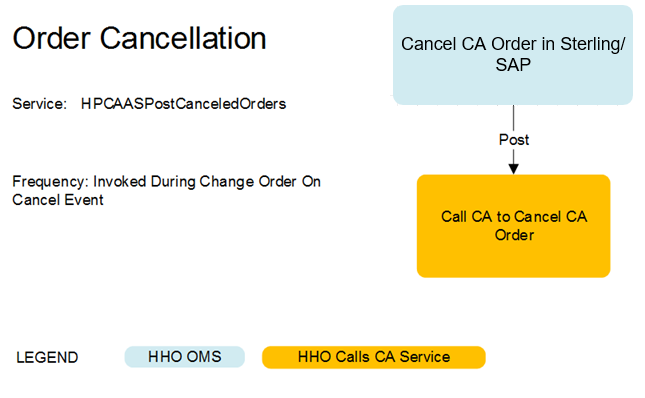


* + 1. Shipment update in CA



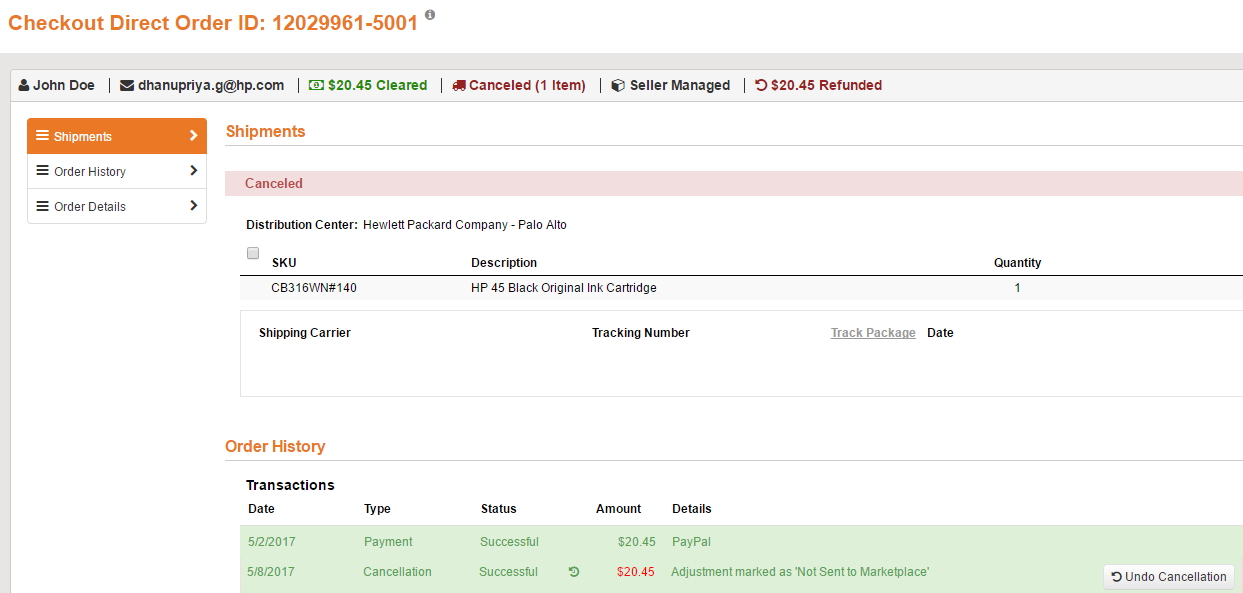
* + 1. Order cancellation

CA order after creating in OMS can be cancelled from OMS Application console/ SAP. In that case, CA order will be cancelled in CA as well. Whenever an order fails OMS/WCS validation or inventory check fails, we cancel the order in CA and don’t create order in OMS.

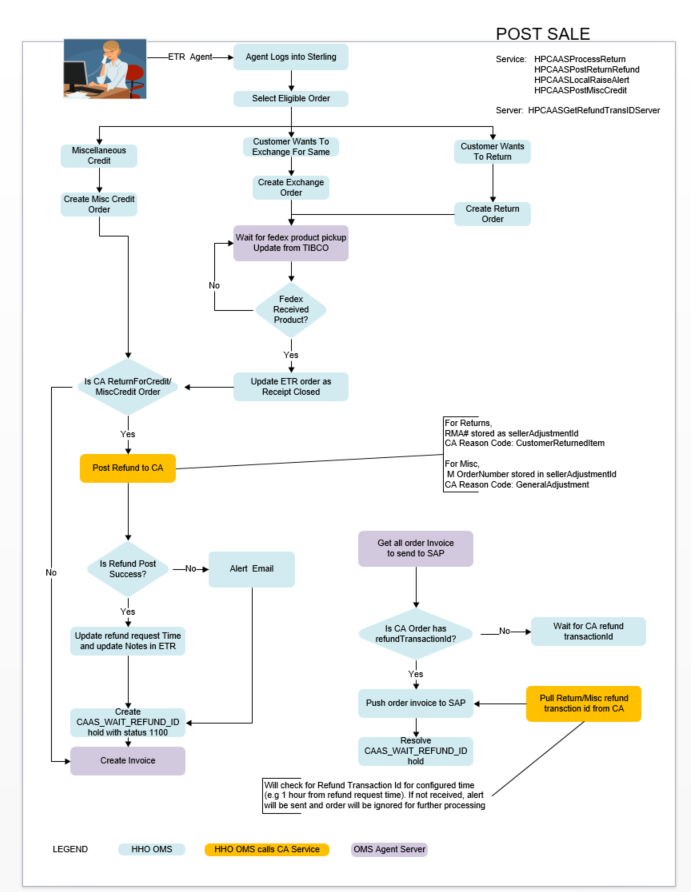


|  |  |  |  |
| --- | --- | --- | --- |
| Group | Transaction/Service Name  (Server Name) | Type | Description |
| CAAS | HPCAASPostCanceledOrders | New Event-based Service  (ChangeOrder.ON\_CANCEL) | To post canceled CA orders in OMS to CA |

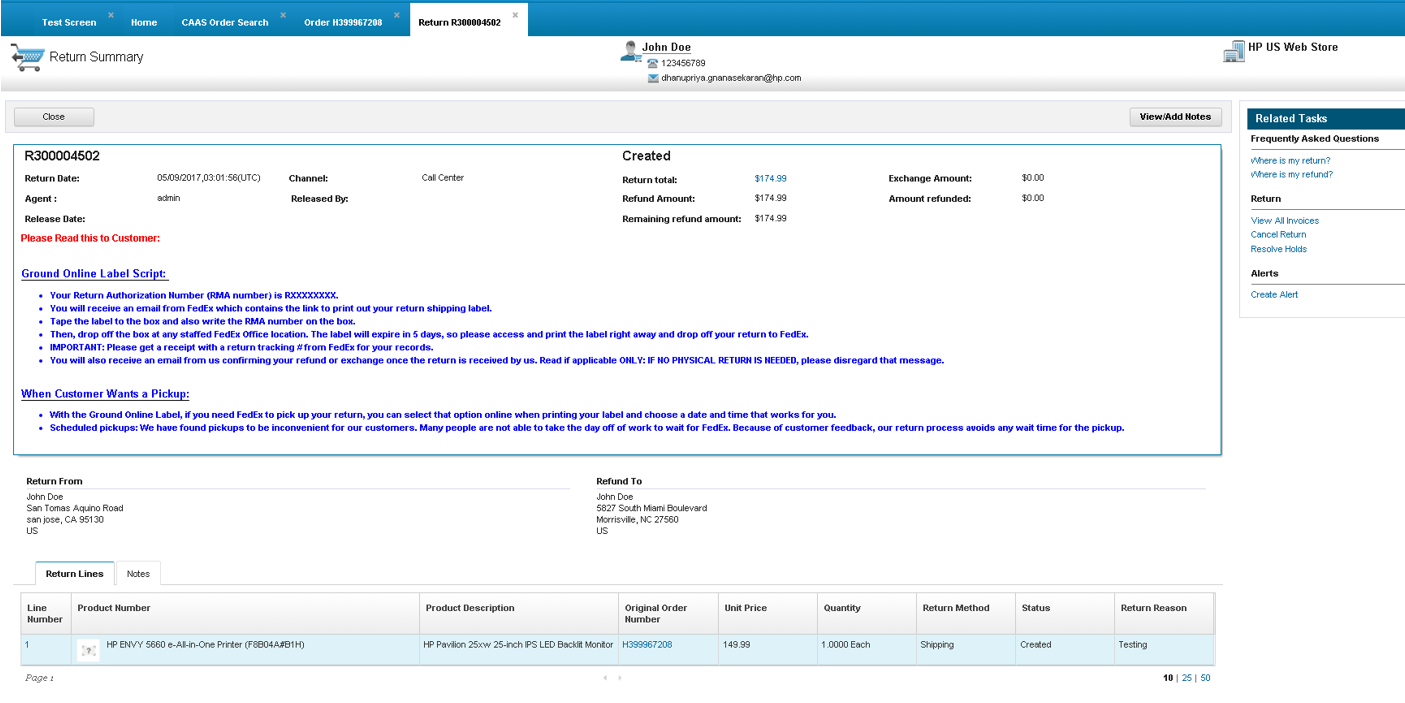
* + 1. Cancelled Order in CA



## Post-Sale

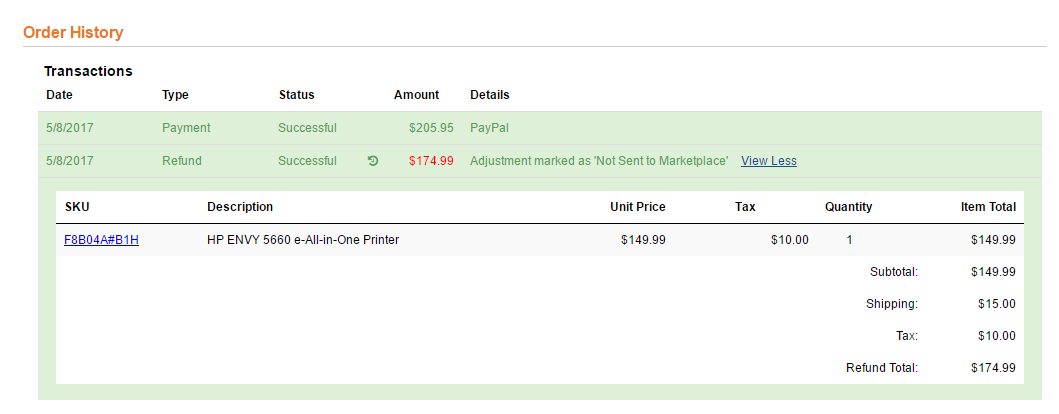


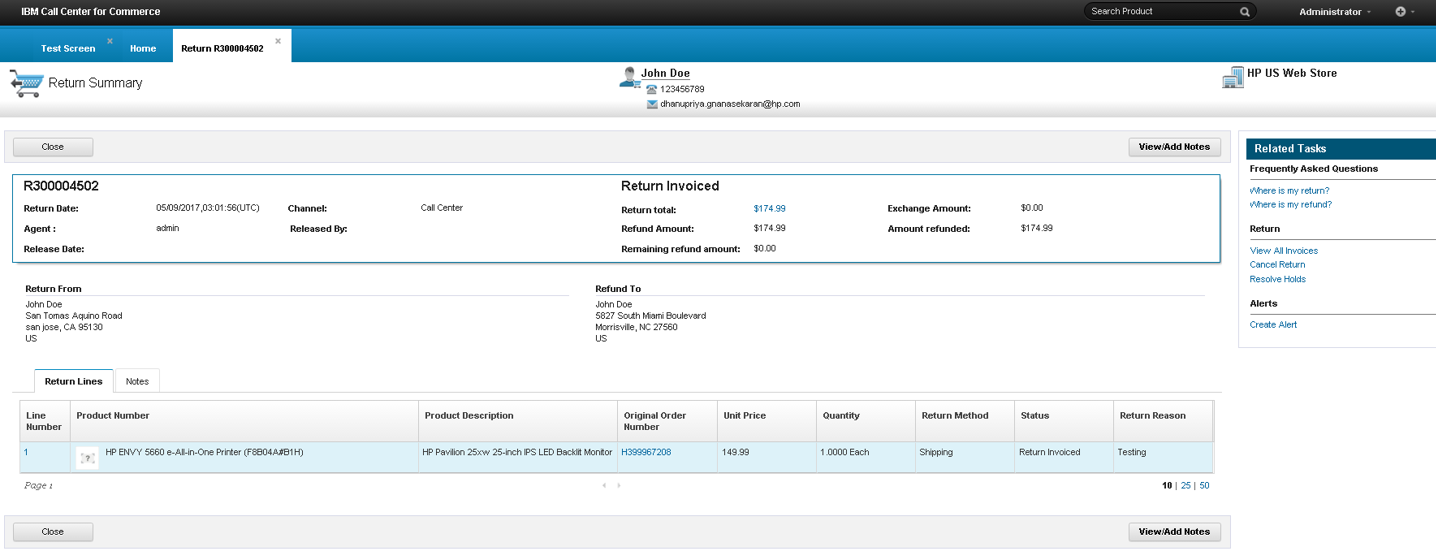
* + 1. Order Refund in OMS

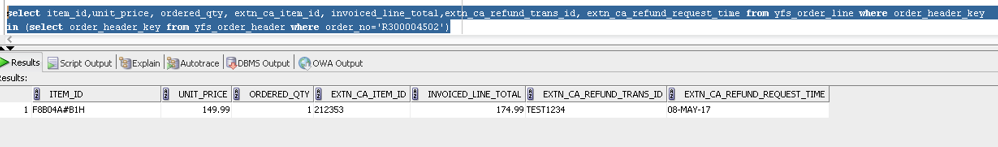


* + 1. Order Refund in CA

CA can only process the “RETURN” refund and “MISC Credit” refund once on a line item. In case there’s a need to apply another refund on the same line item, you may have to address those directly within eBay or PayPal.







* + 1. Refund Transaction ID Services

|  |  |  |  |
| --- | --- | --- | --- |
| Group | Transaction/Service Name  (Server Name) | Type | Description |
| CAAS | HPCAASGetRefundTransIDServer | New Task-based time triggered transaction  (Runs every hour) | To get refund transaction ID for Return Invoiced and Cancelled CA orders in OMS |
| Request URL | | | |
| GET https://api.channeladvisor.com/v1/OrderItems?access\_token=xxxxxxxxxx&$filter=Adjustments/Any (c:c/SellerAdjustmentId eq '<ReturnOrderNo>')&$expand=Adjustments | | | |

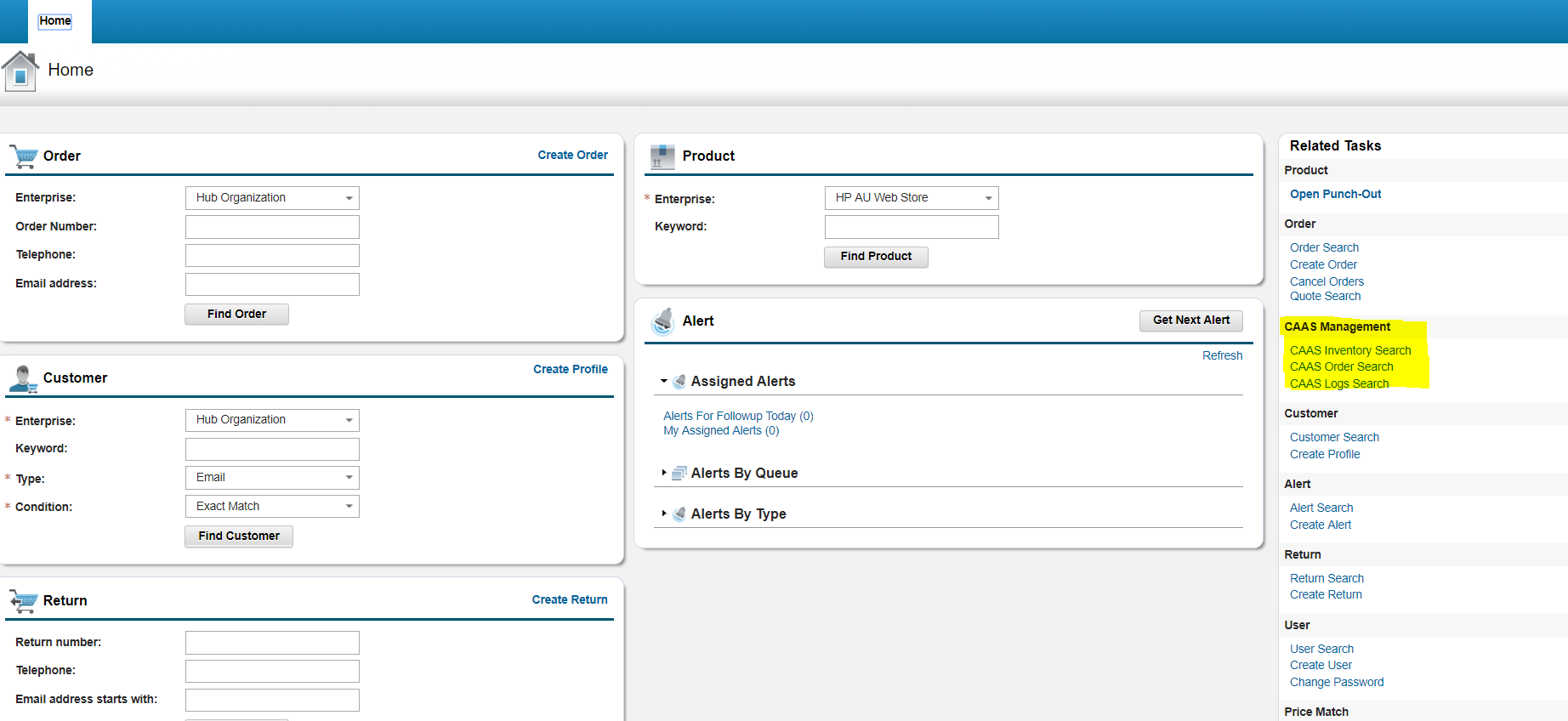
|  |  |  |  |
| --- | --- | --- | --- |
| Group | Transaction/Service Name  (Server Name) | Type | Description |
| CAAS | HPCAASGetMCreditRefundTransIDServer | New Task-based time triggered transaction  (Runs every hour) | To get refund transaction ID for Misc Invoiced CA orders in OMS |
| Request URL | | | |
| GET https://api.channeladvisor.com/v1/OrderItems?access\_token=xxxxxxxxxx&$filter=Adjustments/Any (c:c/SellerAdjustmentId eq '<MOrderNo>')&$expand=Adjustments | | | |

|  |  |  |  |
| --- | --- | --- | --- |
| Group | Transaction/Service Name  (Server Name) | Type | Description |
| CAAS | HPCAASResolveWaitRefundIDHoldServer | New Task-based time triggered transaction  (Runs every hour) | - To resolve CAAS\_WAIT\_REFUND\_ID hold of an order once all of its line items receive the refund transaction id from CA and push the order invoice details to TIBCO by PublishCAASInvoiceTIBCO service. |

## Sterling Call Center Changes

* + 1. CAAS Management

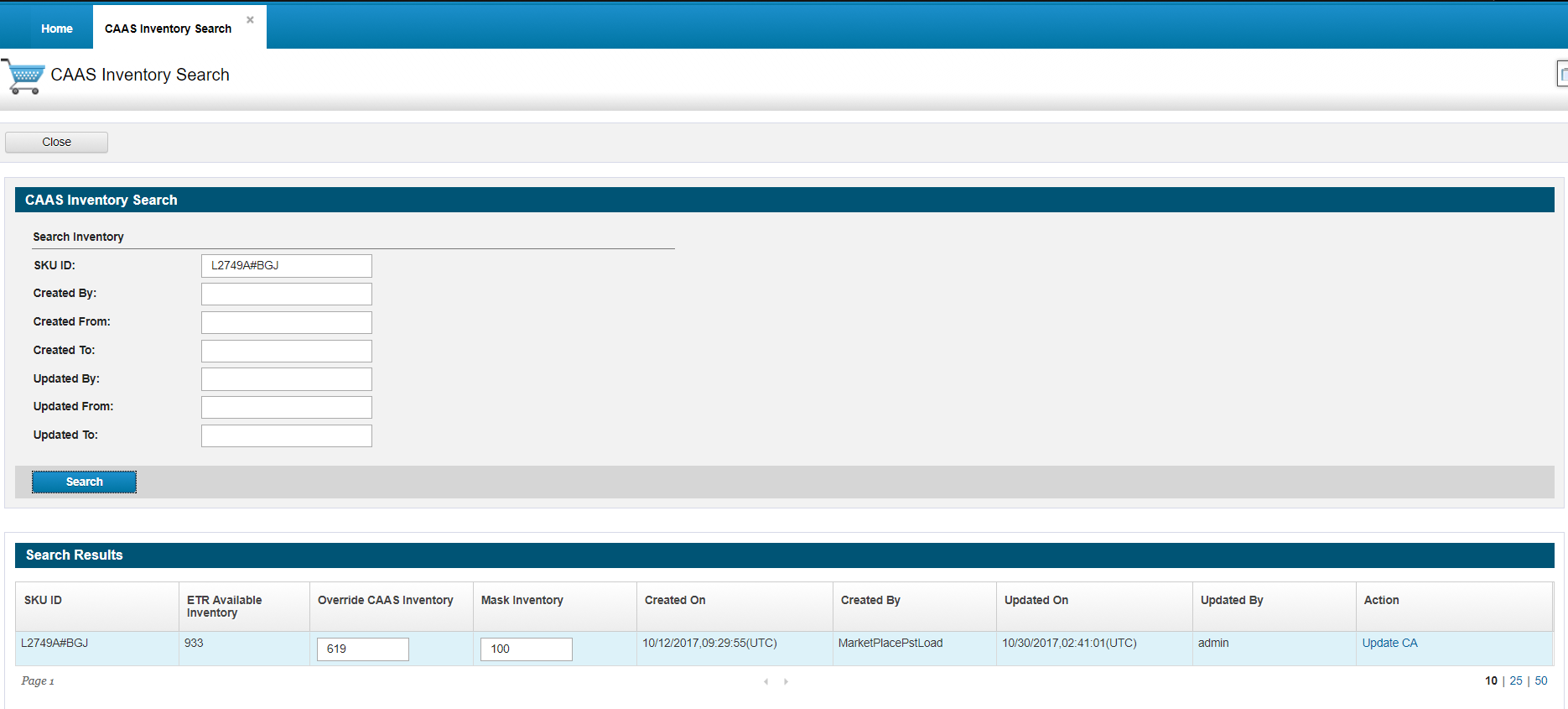
CAAS Management section is added to Related Tasks Pane to manage CA related changes in call center. It includes CAAS Inventory Search, CAAS Order Search and CAAS Logs Search.



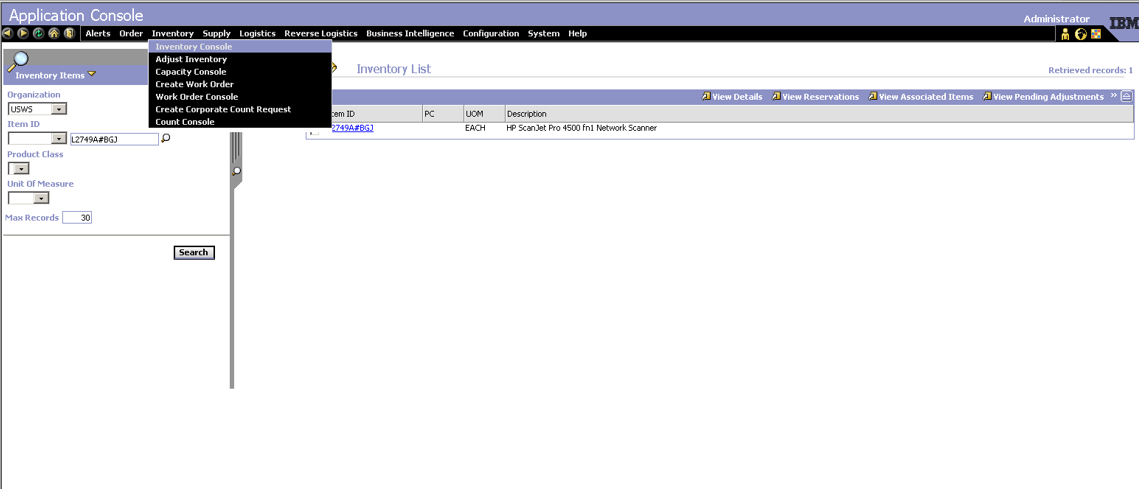
#### CAAS Inventory Management

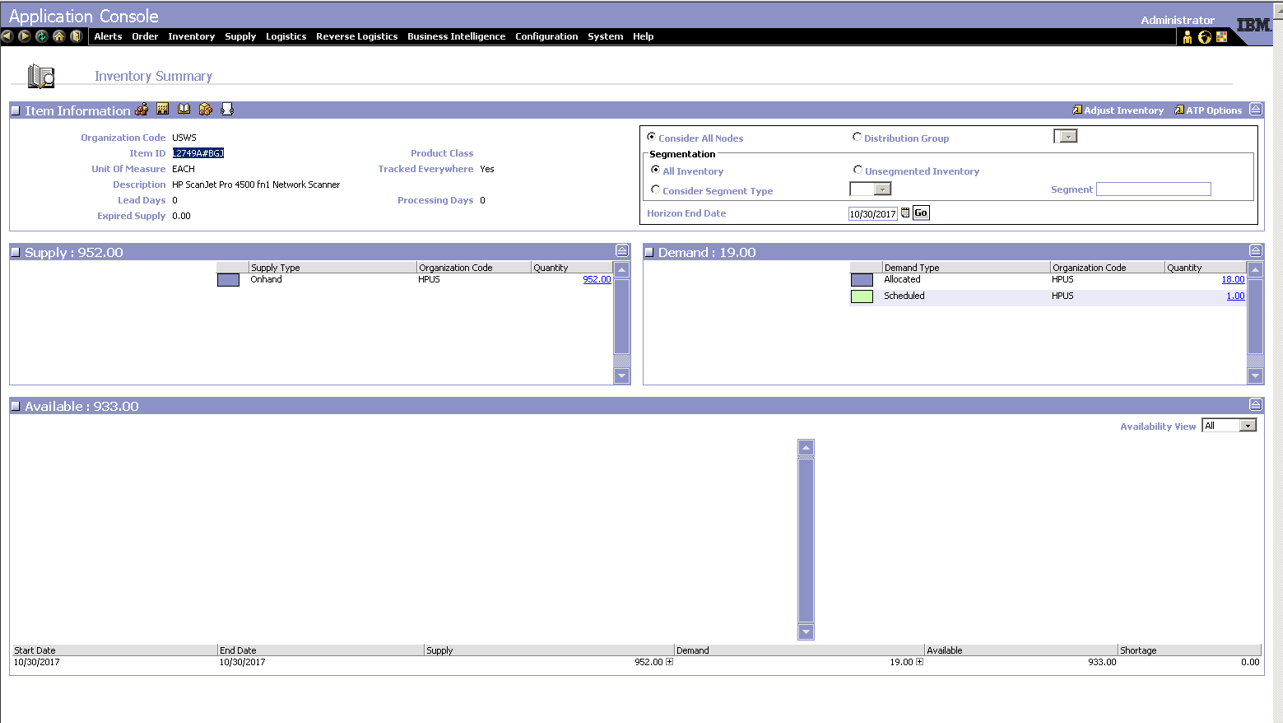
##### **Inventory Search**

User can search for active, existing CA products in ETR by the following fields: SKU, Created By, Updated By, Created From, Created To, Updated From and Updated To. When the parameters are empty in the search filter, the table will display the list of active CA products sorted in ascending order based on SKU ID.



In OMS Inventory console, user can search for the item/SKU ID to verify ETR available inventory.



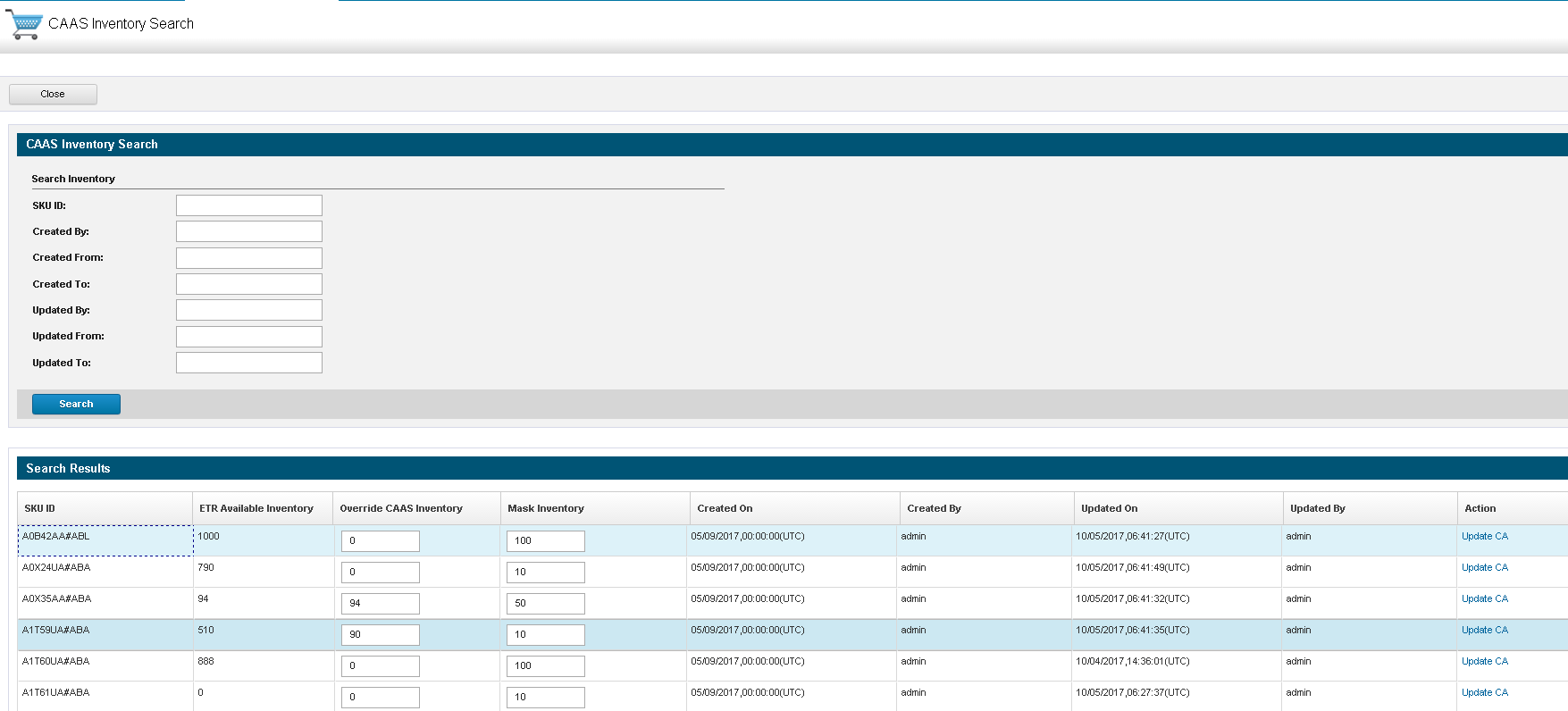


##### **Manual Override of CA Inventory**

User can override product’s inventory in CA by clicking the Update CA link from the Action column of the list grid. If Override CAAS Inventory count is greater than or equal to Mask Inventory (CA Total Inventory = Override CAAS Inventory count – Mask Inventory) else (CA Total Inventory = 0). A pop up message will be displayed when CA inventory update is successful or an error has occurred.

##### **Local Inventory Update**

Mask Inventory and Override CAAS Inventory fields are editable. User can change the grid cell value and click the screen to save the new value in the database. Only positive numbers are allowed for Mask Inventory and Override CAAS Inventory fields, otherwise an error message will be displayed. ETR Available Inventory or the main inventory in OMS is a read only field and is changed by existing RTAM (OP1 and OP3) process.

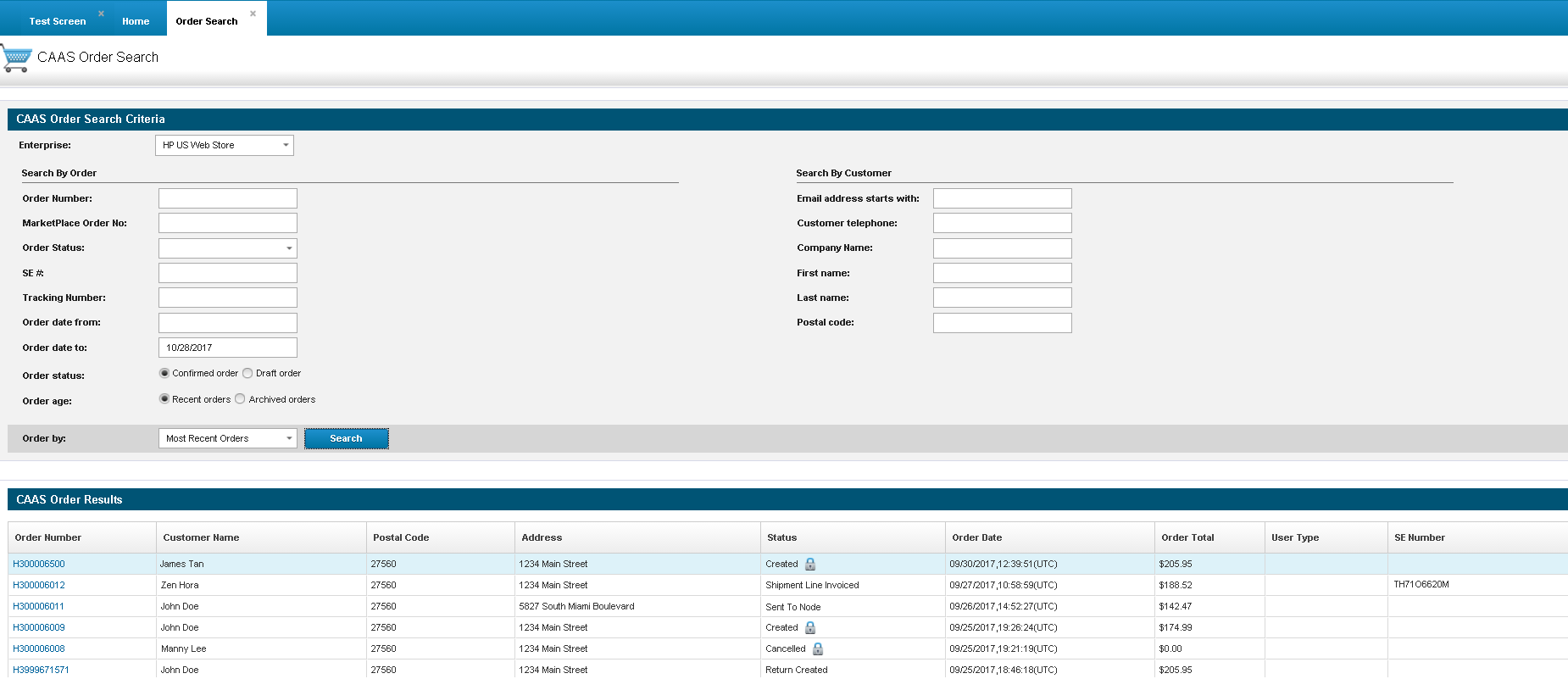


##### **Inventory Database Table**

|  |  |  |  |
| --- | --- | --- | --- |
| Table | Column | Data Type | Description |
| EXTN\_CA\_MASK\_INV | SKUID | VARCHAR2 | Holds the product’s SKU |
| INV\_KEY | KEY | Sequential key |
| MASK\_INV | NUMBER | Inventory Threshold |
| CA\_OVERRIDE\_INV\_CNT | NUMBER | Inventory Count to Override in CA |
| CA\_PRODUCTID | VARCHAR2 | CA product’s ID |
| ACTIVE\_FLAG | VARCHAR2 | Y for buyable, N for non-buyable |
| CREATETS | TIMESTAMP | Holds the date when data is created |
| MODIFYTS | TIMESTAMP | Holds the date when data is modified |
| MODIFYTS\_AGENT | VARCHAR2 | Holds the date when data is modified by agent user |
| CREATEDBY | VARCHAR2 | Holds username who created the data |
| UPDATEDBY | VARCHAR2 | Holds username who modified the data |
| IS\_CA\_UPDATED | VARCHAR2 | “Y” if inventory is updated successfully else “N” |
| CA\_UPDATED\_TIME | TIMESTAMP | Holds the date when the data is updated by HPCAASPostFullInventoryServer |

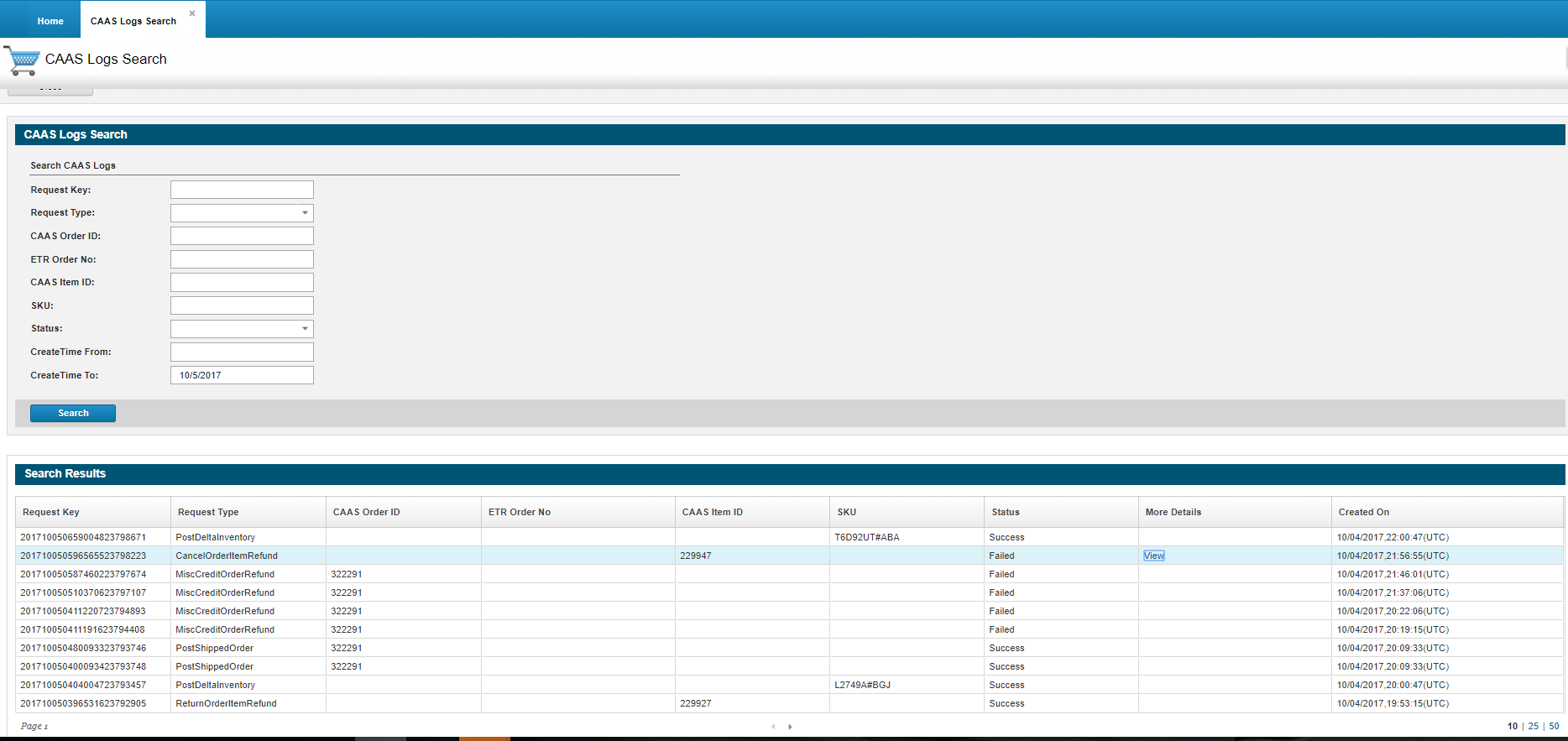
#### CAAS Order Search

CAAS Order Search will only display CA orders based on the given filter parameters. User can search for CA orders based on the status (Released, Sent to Node, Shipment Line Invoiced, Return Created and Cancelled)



#### CAAS Log Search

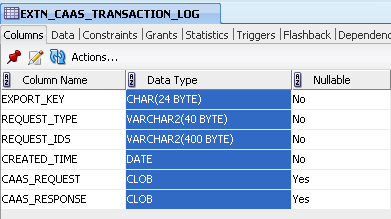
When user hits search with empty parameters, the table will display the list of log details sorted in descending order based on created time. (Refer to section 2.2.1.3.1.2)

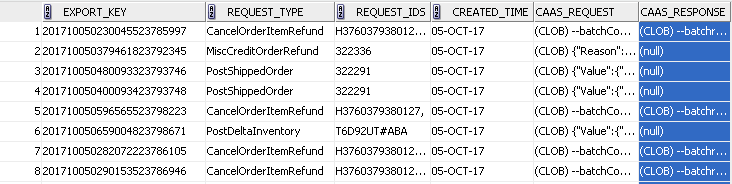


##### CAAS Log Database Table

###### EXTN\_CAAS\_TRANSACTION\_LOG

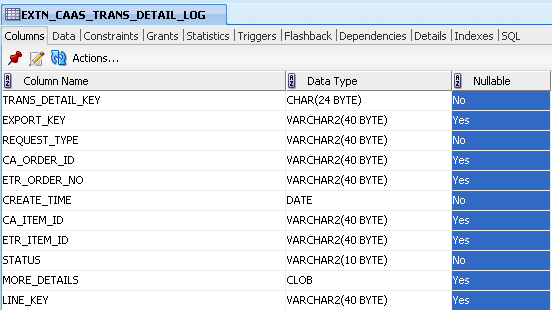
This table holds the request ids, request type, single/batch request and response of every service calls to CA.

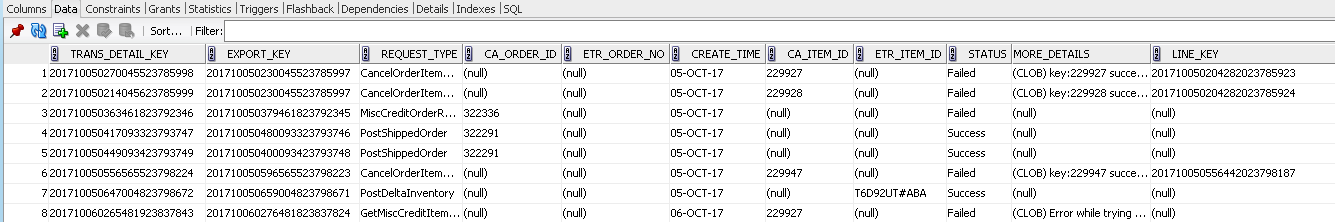


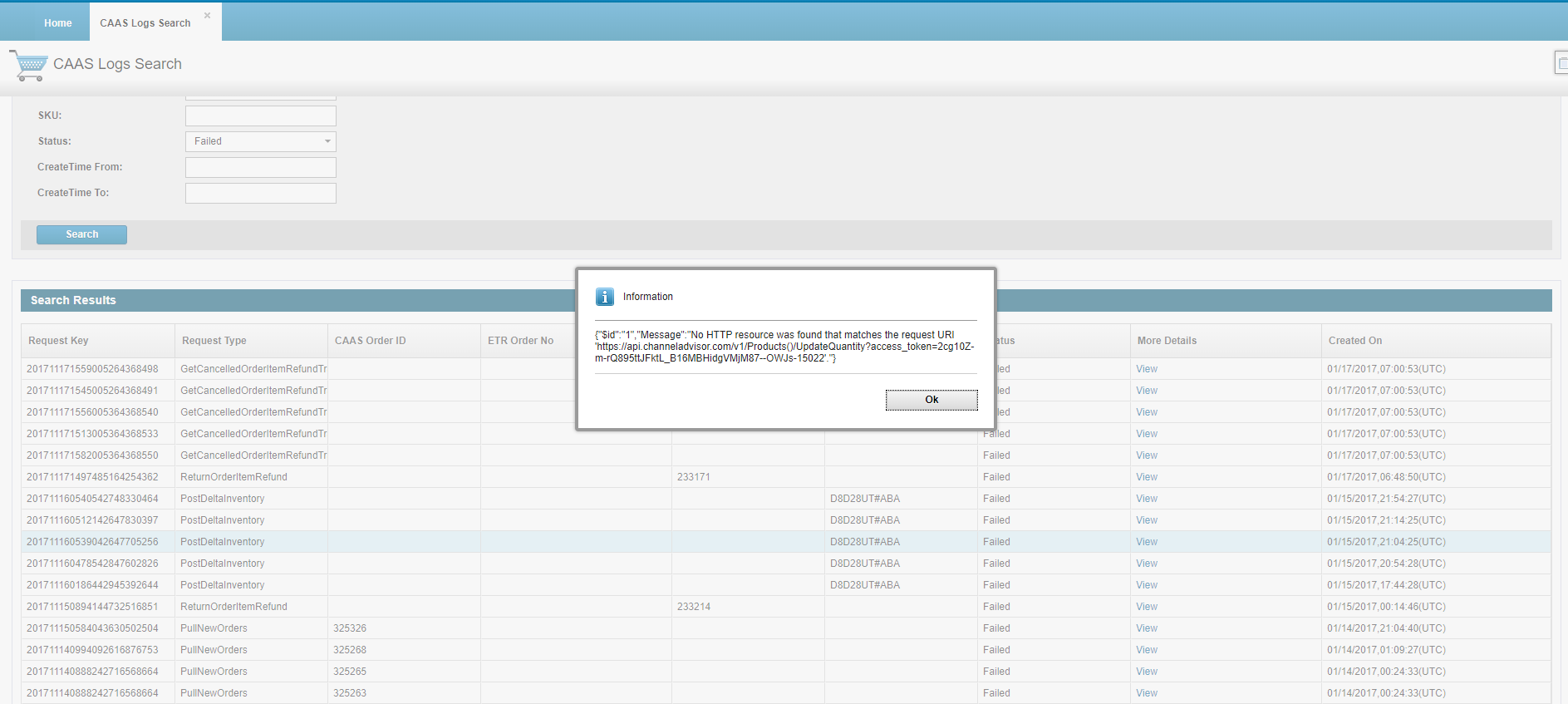


###### EXTN\_CAAS\_TRANS\_DETAIL\_LOG

This table holds the details of every single requests to CA. It shows the request type, response status, specific request id and details of the error response from CA.

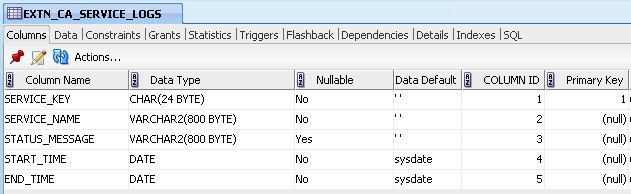


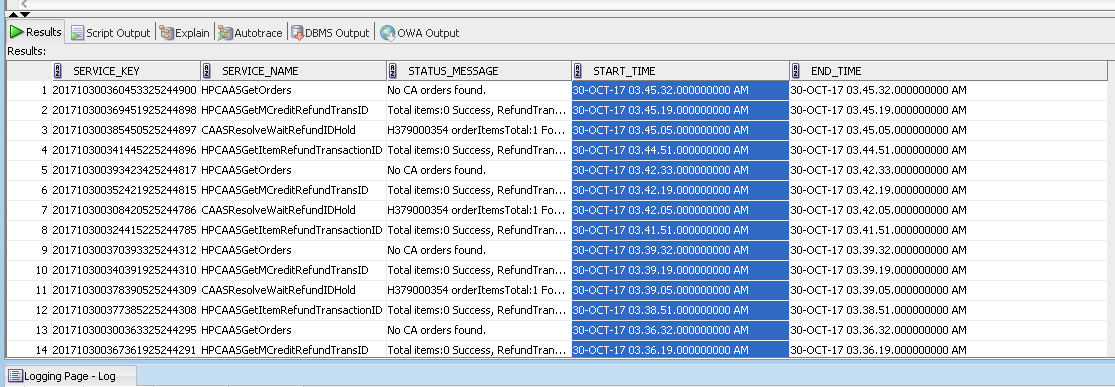




###### EXTN\_CA\_SERVICE\_LOGS

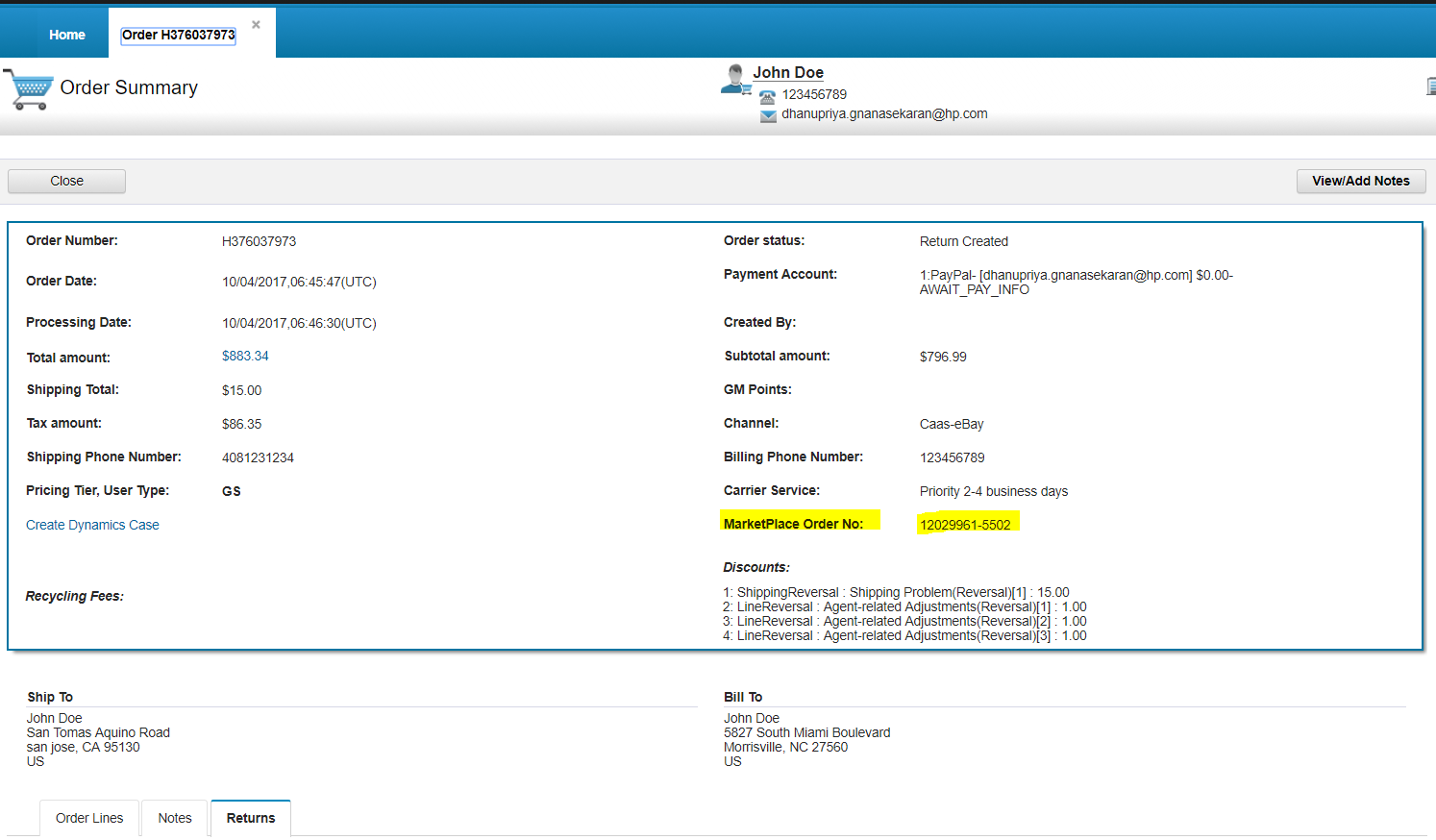
This table holds the service name, status message, start and end time of 3rd party agent servers.





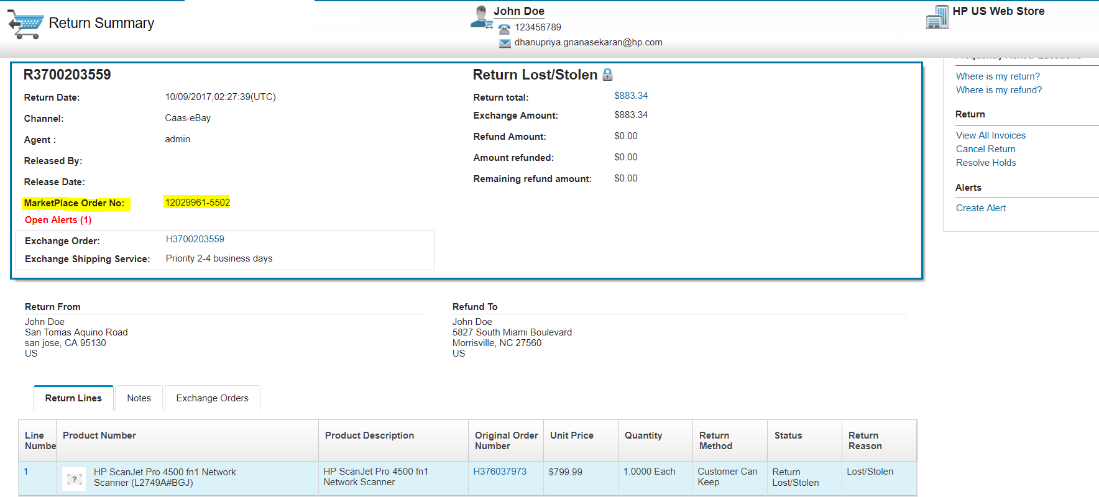
* + 1. Order Details Summary

Marketplace Order No field is added to Order Summary screen.



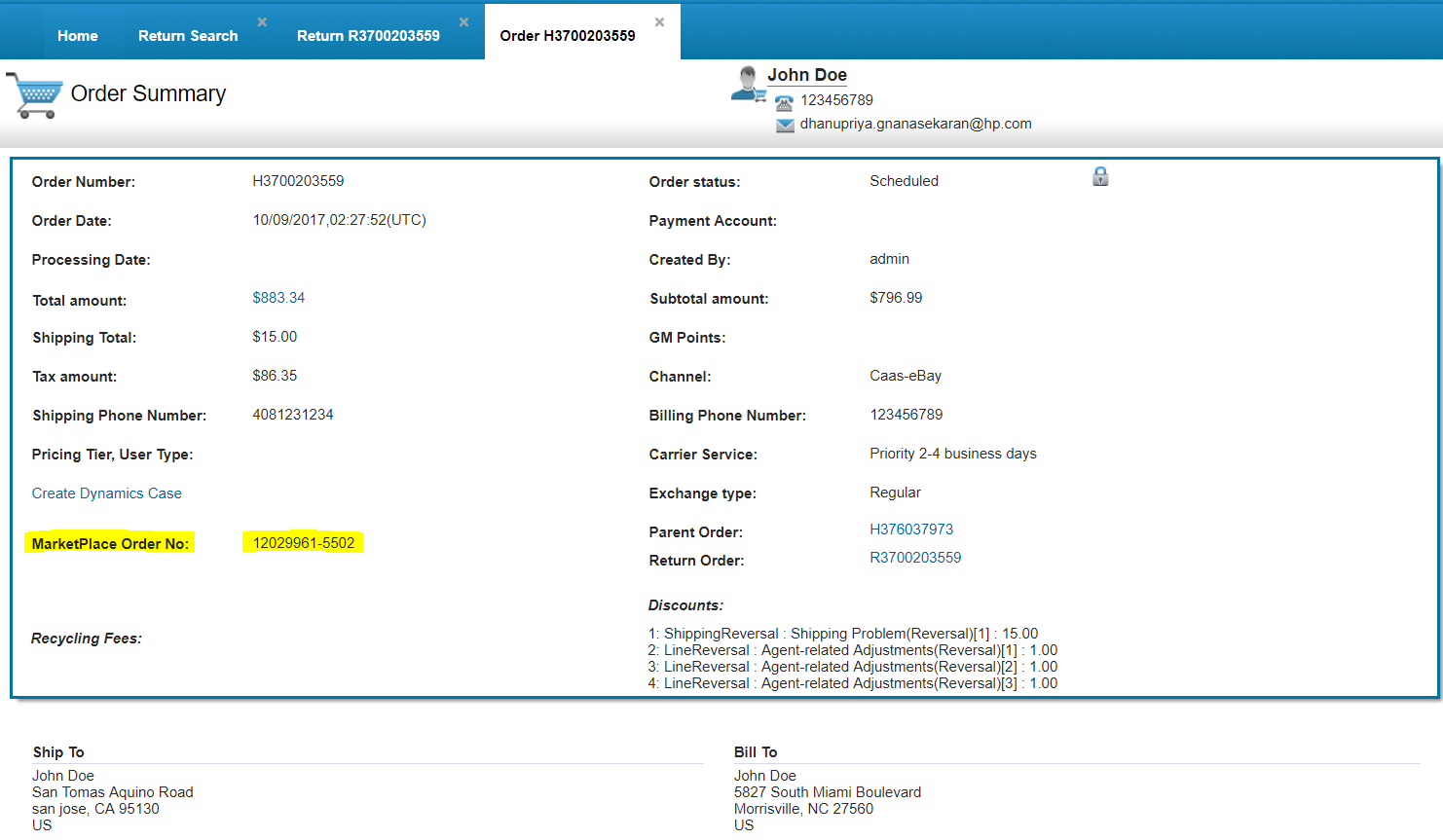
* + 1. Return Order Details

Marketplace Order No field is added to Return Order Summary screen.



* + 1. Exchange Order Details

Marketplace Order No field is added to Exchange Order Summary screen.



Inventory Load

How stock data is being send to Channel advisor

* + 1. Full Inventory

HPCAASPostFullInventoryServer runs once a day. It pulls active CA products from ETR, computes the Masked Available Inventory for each product and sends the inventory to CA by batch.

Masked Available Inventory = ETR Available Inventory – Mask Inventory (Threshold)

ETR Available Inventory – the remaining quantity of the product and is handled by existing RTAM (OP1 and OP3) process

Mask Inventory – the threshold value set in EXTN\_CA\_MASK\_INV table by Catalog Team or from Sterling Call Center CAAS Inventory Search section

CA deducts any open listings, pending checkouts, pending payments and pending shipments from the submitted quantity value and sets the remaining as the inventory quantity.

To reprocess failed CA products, set below properties in customer\_overrides.properties file and rerun the service to post the inventory for the CA products that failed from the previous runs set in the given date range.

|  |  |  |
| --- | --- | --- |
| Name | Value | Description |
| yfs.caas.fullinventory.rerun.flag | Y | Allows reprocess of CA products that failed from inventory load |
| yfs.caas.fullinventory.rerun.isUpdated | N | Checks column IS\_CA\_UPDATED from EXTN\_CA\_MASK\_INV table which has value of ‘N’. If inventory update is successful, this column is set to ‘Y’, else ‘N’. |
| yfs.caas.fullinventory.rerun.dateFrom | (eg. 2017-08-12) | DateRange Format: yyyy-MM-dd. Checks column CA\_UPDATED\_TIME from EXTN\_CA\_MASK\_INV table. CA\_UPDATED\_TIME is later than or equal to dateFrom and earlier than dateTo. |
| yfs.caas.fullinventory.rerun.dateTo | (eg. 2017-08-13) |



Update Quantity by Batch Using the "Unshipped" Update Type

|  |
| --- |
| Request URL |
| POST https://api.channeladvisor.com/v1/$batch?access\_token=xxxxxxxxxx |

|  |
| --- |
| Request Body |
| --batch  Content-Type: multipart/mixed; boundary=changeset  --changeset  Content-Type: application/http  Content-Transfer-Encoding: binary  Content-ID: 1  POST https://api.channeladvisor.com/v1/Products(466385)/UpdateQuantity?access\_token= xxxxxxxxxx HTTP/1.1  Content-Type: application/json  {"Value”: {"UpdateType":"UnShipped","Updates”: [{"DistributionCenterID":"0","Quantity":"978"}]}}  --changeset  Content-Type: application/http  Content-Transfer-Encoding: binary  Content-ID: 2  POST https://api.channeladvisor.com/v1/Products(449374)/UpdateQuantity?access\_token= xxxxxxxxxx HTTP/1.1  Content-Type: application/json  {"Value”: {"UpdateType":"UnShipped","Updates”: [{"DistributionCenterID":"0","Quantity":"938"}]}}  --changeset--  --batch-- |

* + 1. Delta Inventory

HPCAASPostDeltaInventory is an event based service that runs every 15 mins when RTAM(Op1) runs. If product is active and existing CA in ETR, service computes its Masked Available Inventory and posts inventory to CA.



Update Quantity - (Single DC Update)

|  |
| --- |
| Request URL |
| POST https://api.channeladvisor.com/v1/Products(466385)/UpdateQuantity?access\_token=xxxxxxxxxx |

|  |
| --- |
| Request Body |
| {  "Value": {  "UpdateType": "UnShipped",  "Updates": [{  "DistributionCenterID": “0”,  "Quantity": “90”  }]  }  } |

Inventory Services

|  |  |  |  |
| --- | --- | --- | --- |
| Group | Transaction/Service Name  (Agent Server) | Type | Description |
| CAAS | HPCAASPostDeltaInventory | New Event-based Service  (RTAM. REALTIME\_AVAILABILITY\_CHANGE) | To post total inventory count (Available Inventory –Mask Inventory) for every inventory change in OMS for active CA Item |
| HPCAASPostFullInventoryServer | New Task-based time triggered transaction | To post total inventory count for existing active CA Items in OMS to CA |
| HPCAASOverrideInventory | New Service | To override CA Total inventory count manually |
| HPCAASInventorySearch | New Service | To pull inventory details of active CA items and display on Sterling CC |
| HPCAASLocalUpdateInventory | New Service | To update “Mask Inventory” and “Override CAAS Inventory” fields in OMS |

## Failure Email Services

HPCAASRaiseEmail is an email service which sends email to a set of recipients when a failure occurs for CA order. The list of failure scenarios for which emails are triggered are listed below.

* + 1. Get CA order failure email

This email is triggered when there is failure while pulling the CA orders to ETR.

* + 1. Create order failure email

This email is triggered when there is ETR validation failure/OMS order processing failure/pulled CA order already exists.

* + 1. Cancel order failure email

This email is triggered when there is failure while cancelling an order in CA.

* + 1. Export order failure email

This email is triggered when there is failure while exporting an order in CA.

* + 1. Refund item failure email

This email is triggered when there is failure while processing the refund in CA.

* + 1. Refund transaction ID failure

This email is triggered when there is failure while retrieving the refund transaction ID from CA. Also, email is sent when return order or misc invoice or cancelled order did not receive refund transaction ID within configured time limit (24hrs).

* + 1. Update order status failure

This email is triggered when there is failure while updating order status in CA.

* + 1. Shipment failure

This email is triggered when there is failure updating shipment status of an order in CA.

* + 1. Update Inventory failure

This email is triggered when there is failure while updating product inventory in CA.

## DB Changes

* + 1. OMS Database Changes

Table Name: YFS\_ORDER\_HEADER

|  |  |  |  |
| --- | --- | --- | --- |
| **Column name** | **Column Type** | **Default value** | **Description** |
| EXTN\_CA\_ORDER\_NO | VARCHAR2 |  | Holds CA order Number |
| EXTN\_MARKETPLACE\_ORDER\_NO | VARCHAR2 |  | Holds marketplace order number |

Table Name: YFS\_ORDER\_LINE

|  |  |  |  |
| --- | --- | --- | --- |
| **Column name** | **Column Type** | **Default value** | **Description** |
| EXTN\_CA\_ITEM\_ID | VARCHAR2 |  | Holds CA Order item id |
| EXTN\_CA\_REFUND\_TRANS\_ID | NULL | NULL | Field holds CA Refund Trans Id |
| EXTN\_CA\_REFUND\_REQUEST\_TIME | Timestamp |  | Field holds CA Refund Request Time |

Table Name: YFS\_ORDER\_INVOICE\_DETAIL

|  |  |  |  |
| --- | --- | --- | --- |
| **Column name** | **Column Type** | **Default value** | **Description** |
| EXTN\_CA\_REFUND\_TRANS\_ID | NULL | NULL | Field holds CA Refund Trans Id |
| EXTN\_CA\_REFUND\_REQUEST\_TIME | Timestamp |  | Field holds CA Refund Request Time |

Table Name: YFS\_ITEM

|  |  |  |  |
| --- | --- | --- | --- |
| **Column name** | **Column Type** | **Default value** | **Description** |
| EXTN\_PLANT\_CODE | VARCHAR2 |  | WCS Item plant code. |

* + 1. WCS Database Changes

Configuration data:

|  |  |  |
| --- | --- | --- |
| Name | Value | Usage |
| CAAS\_ITM\_PRICE\_ACCEPTANCE\_THRESHOLD | 0 | To set price difference tolerance amount (used only when CAAS amount is less than ETR amount) |
| CAAS\_ITM\_SHIPCOST\_ACCEPTANCE\_THRESHOLD | 0 | To set ship cost difference tolerance amount (used only when CAAS amount is less than ETR amount) |
| CAAS\_TOTAL\_TAX\_ACCEPTANCE\_THRESHOLD | 0 | To set tax cost difference tolerance amount (used only when CAAS amount is not equal to ETR amount) |
| CAAS\_ITEM\_RC\_ACCEPTANCE\_THRESHOLD |  | To set recycle fee difference tolerance amount (used only when CAAS amount is not equal to ETR amount) |
| CAAS\_SHIP\_METHOD\_GROUND | GROUND | CAAS ship class code for 3-5 ship method |
| CAAS\_SHIP\_METHOD\_2DAY | 2DAY | CAAS ship class code for 2days ship method |
| CAAS\_SHIP\_METHOD\_NEXTDAY | OVERNIGHT | CAAS ship class code for next day ship method |
| ETR\_SHIP\_GROUND\_NSIGN | GR | ETR ship code for 3-5 ship method |
| ETR\_SHIP\_2DAY\_NSIGN | ES | ETR ship code for 2days ship method |
| ETR\_SHIP\_NEXTDAY\_NSIGN | YO | ETR ship code for next day ship method |
| CAAS\_VALIDATE\_REQ\_LOG\_ENABLE | True | To enable request/response logging in table |
| CAAS\_ORD\_REQ\_LOG\_ENABLE | True | To enable order level validation details logging in table |
| TAX\_TRANS\_LOG\_ENABLED | True | WSTax request/response logging for CAAS orders |
| PGS\_TRANS\_LOG\_ENABLED | True | PGS RMS request/response logging for CAAS orders |

Table Name: CAAS\_REQUEST\_LOG

|  |  |  |
| --- | --- | --- |
| COLUMN NAME | TYPE | Details |
| REQUEST\_ID | NUMBER(38, 0) | Request Id |
| REQUEST\_TYPE | VARCHAR2(200) | Type can be ValidateCAOrder, Tax, PGS-RMS |
| REQUEST | CLOB | Request json or xml |
| RESPONSE | CLOB | Response json or xml |
| CREATED\_TIME | TIMESTAMP | Created time |

Table Name: CAAS\_ORDER\_REQUEST\_LOG

|  |  |  |
| --- | --- | --- |
| COLUMN NAME | TYPE | Details |
| REQUEST\_ID | NUMBER(38, 0) | Request Id |
| CA\_ORDER | VARCHAR2(30) | CA order Number |
| ETR\_ORDER | VARCHAR2(30) | ETR Order Number |
| VALID | VARCHAR2 (10) | Flag to hold the status |
| MORE\_DETAILS | CLOB | More details about validation |
| CREATED\_TIME | TIMESTAMP | Time stamp |

## Files impacted

* + 1. Java classes

|  |  |  |
| --- | --- | --- |
| File Name | New File | Remarks |
| ProcessCAOrders.java | New | Master file orchestrating the flow between CA, OMS & WCS. |
| CAOMSUtil.java | New | Util supporting CA-OMS operations |
| CAWCSUtil.java | New | Util supporting CA-WCS operations |
| WCSWebServiceUtil.java | Existing | Util supporting WCS validation service invocations |
| HPBeforeCreateOrderUEImpl.java | Existing | Remove remorse/holds for CA orders |
| IsCaasOrder.java | New | Supporting class file for condition to check if it’s a CA order |
| IsShipNodeChanged.java | Existing | To ByPass payment capture call for CA orders even though ship node is changed. |
| HPConstant.java | Existing | CA supporting constant values mapping |
| CAEmailUtil.java | New | Util supporting sending emails to a set of recipients on failure cases. |
| HPPublishDetailsOnSendInvoice.java | Existing | Payment capture is bypassed for CA orders. But these details are needed for TIBCO. We copy the payment details for CA paypal orders here with the data captured from CA before publishing to TIBCO. |
| HPUpdateWebProfileIDinReturns.java | Existing | Updating the CA relation information (like CA order no.,CA item ID, marketplace no. etc) for return orders. |
| HPCollectionOthersUEImpl.java | Existing | To ByPass payment capture call for CA orders . |

* + 1. XML/XSL/Property files

|  |  |  |
| --- | --- | --- |
| File Name | New File | Remarks |
| ORDER\_CREATE.ON\_SUCCESS.xml | Existing | To check if it’s a CA order, CA order no. should be passed as part of success xml. So, that HPCheckWCSAuthorizedAmount is bypassed for CA orders (and no charge failure hold is put on CA orders). Marketplace order no. also added to be sent to SAP. To bypass order confirmation email also this is used. |
| YFS\_ORDER\_HEADER\_EXTN.xml | Existing | To include CA order no. in yfs\_order\_header table |
| YFS\_ORDER\_LINE\_EXTN.xml | Existing | To include CA item ID in yfs\_order\_line table |
| SCHEDULE.ON\_BACKORDER.xml | New | To check if it’s a CA order, CA order no. should be passed as part of back order xml. So, that backordered CA orders can be cancelled. [Supporting changes for CreateHoldOnBackOrder] |
| SCHEDULE.ON\_SUCCESS.xml | Existing | CA order no. & Marketplace order no. also added to be sent to SAP. |
| CancelCAOrderOnBackOrder.xsl | New | Input for cancelling back orders order |
| RELEASE.ON\_SUCCESS.xml | New | To check if it’s a CA order, CA order no. should be passed as part of success xml. So, that payment capture call is not done. Supporting changes for IsShipNodeChanged & OrderPaymentCapture. Marketplace order no. also added to be sent to SAP. |
| Customer\_overrides.properties | Existing | CA property map |
| Yfs\_item\_extn.xml | Existing | Added plant code as part of the yfs\_item table so that catalog team can populate and we can use the same for create order input contruction |
| ORDER\_CHANGE.ON\_CANCEL.xml | Existing | To check if it’s a CA order, CA order no. should be passed as part of success xml. |
| ORDER\_CHANGE.ON\_HOLD\_TYPE\_STATUS\_CHANGE.xml | Existing | To check if it’s a CA order, CA order no. should be passed as part of success xml. |
| DRAFT\_ORDER\_CONFIRM.ON\_SUCCESS.xml | Existing | Added DerivedFromOrderLineKey for updating return order with CA details. |

* + 1. CDT changes

|  |  |  |
| --- | --- | --- |
| File Name | New File | Remarks |
| HPCheckWCSAuthorizedAmount | Existing | CDT service level change to avoid charge failure hold for CA orders. |
| IsCaasOrder | New | Introduced new condition IsCAOrder in application console (CDT) |
| CreateHoldOnBackOrder | Existing | CDT service level change to cancel backordered orders |
| OrderPaymentCapture | Existing | CDT service level change to by pass payment capture for CA orders |
| CreateOrderConfirmationToWLIQueue | Existing | Suppress order confirmation notification to customers (CDT) for CA orders |
| PublishCancelOrderConfirmationTIBCO | Existing | Suppress order cancellation notification to customers (CDT) for CA orders |
| PublishShipConfirmationTIBCO | Existing | Suppress consolidated shipment notification to customers (CDT) for CA orders |
| PublishSalesOrderDetailsToFDQueueTIBCO | Existing | Suppress fraud decline notification to customers (CDT) for CA orders |
| HPConsolidatedCancelOrder | Existing | Added ExtnCAOrderNo & ExtnMarketplaceOrderNo to suppress cancel order email to customers for CA orders. |
| HPConsolidatedCancelOrderToExportTable | Existing | Added ExtnCAOrderNo & ExtnMarketplaceOrderNo to suppress cancel order email to customers for CA orders. |

* + 1. Services

|  |  |  |
| --- | --- | --- |
| File Name | New File | Remarks |
| HPCAASGetOrders | Existing | CDT service level change to avoid charge failure hold for CA orders. |
| IsCaasOrder | New | Introduced new condition IsCAOrder in application console (CDT) |
| CreateHoldOnBackOrder | Existing | CDT service level change to cancel backordered orders |
| OrderPaymentCapture | Existing | CDT service level change to by pass payment capture for CA orders |
| CreateOrderConfirmationToWLIQueue | Existing | Suppress order confirmation notification to customers (CDT) for CA orders |
| PublishCancelOrderConfirmationTIBCO | Existing | Suppress order cancellation notification to customers (CDT) for CA orders |
| PublishShipConfirmationTIBCO | Existing | Suppress consolidated shipment notification to customers (CDT) for CA orders |
| PublishRefundNotificationMsgTIBCO | Existing | Suppress order refund notification to customers (CDT) for CA orders |
| HPCAASRaiseEmail | New | Introduced new email service to send emails to a set of recipients when an order creation fails in ETR for varied reasons. |
| PublishSalesOrderDetailsToFDQueueTIBCO | Existing | Suppress fraud decline notification to customers  (CDT) for CA orders |

Reference link

* + 1. Product/Inventory management

<http://ssc.channeladvisor.com/howto/getting-started-inventory-0>

* + 1. Orders

<https://developer.channeladvisor.com/working-with-orders>

Amazon Web services

* + 1. Documentation

<https://developer.amazonservices.com/gp/mws/index.html/162-8701958-0332041>

Troubleshooting

CAAS Get New Orders Failure

**Subject :** CAAS Get New Orders Failure

**Sample email:**

Dear CAASTeam ,   
  
CAAS get new orders failed at 10:23 AM, CST  
Reason for failure (CAAS Response): <?xml version="1.0" encoding="UTF-8"?> <Errors> <Error ErrorCode="Error while getting accessToken. POST <URL:https://api.channeladvisor.com/oauth2/token?refresh_token=mX5DzwSRhfsI34TeRWq6w6fLnZo7nFQbZZi-sZ8GbzE&amp;grant_type=refresh_token>" ErrorDescription="Exception : java.lang.RuntimeException: javax.net.ssl.SSLHandshakeException: Received fatal alert: handshake\_failure, in com.hp.sterling.caas.HPInvokeCARestService.setAccessToken" ErrorUniqueExceptionId="192.168.74.14215087254368430000000000001"> <Attribute Name="ErrorUniqueExceptionId" Value="192.168.74.14215087254368430000000000001"/> </Error> </Errors>   
  
Please fix this before next run.  
  
Sincerely,  
HPStore Team.

**Solution:** Check the certificate

CAAS Create Order Failure

**Subject:** CAAS Create Order Failure

**Sample email :**

Dear CAASTeam ,   
  
CASS new order creation failed in OMS.  
Please find the details of failed orders below :  
  
CA order No: 323580  
ETR order no:   
Reason: ItemNotAvailable  
  
Sincerely,  
HPStore Team.

**Solution:** Check the item inventory in ETR.

CAAS Ship Order Failure

**Subject:** CAAS Ship Order Failure

**Sample email:**

Dear CAASTeam ,   
  
CAAS order shipment failed.  
Please find the details of failed shipment below :  
  
CA Order ID: 322336  
Tracking Number: 040686054606528  
CA Shipping Class: Standard Overnight  
CA Shipping Carrier: FedEx  
Reason: { "error":{ "code":"38292284","message":"There are no fulfillments eligible for update with the specified items." } }:

Or

Reason: { "error":{ "code":" 34816914","message":" The unshipped quantity remaining on the order is insufficient to complete the request." } }:  
  
Sincerely,  
HPStore Team.

**Solution:** If CA order is partially shipped, we cannot change the shipment details of the items.

CAAS Update Inventory Failure

**Subject:** CAAS Update Inventory Failure

**Sample email:**

Dear CAASTeam ,   
  
CAAS inventory update failed.  
Please find the details of failed SKUs below :  
  
SKU: ND1990  
CA Product ID:   
Total Actual Inventory: 822  
Reason: 404:Not Found Content-Type: application/json; charset=utf-8 {"Message":"No HTTP resource was found that matches the request URI 'https://api.channeladvisor.com/v1/Products()/UpdateQuantity?access\_token=nKolrwKLyDieGOpm6YbdjlCpEAQjF8XRcCGP4rjzaMc-15022'."}   
  
Sincerely,  
HPStore Team.

**Solution:** Product is not available in CA. Create the product in CA or set this product as inactive. Run below queries in database.

UPDATE EXTN\_CA\_MASK\_INV SET ACTIVE\_FLAG = ‘N’ WHERE SKUID = ‘<PRODUCT’S SKU>’;

COMMIT;

Dear CAASTeam ,   
  
CAAS inventory update failed.  
Please find the details of failed SKUs below :  
  
  
SKU: Z4Z37UA#ABA  
CA Product ID: 560493  
Total Actual Inventory: 0  
Reason: 429:Unknown Status Code   
  
Sincerely,  
HPStore Team.

**Solution:** This is CA issue.Raise a case to CA support team.

CAAS Refund Transaction ID Failure

Dear CAASTeam ,   
  
CAAS refund transaction ID request failed. Please find the details of failed refunds below :  
  
ETR Order No.: R3700203649  
Reason: R3700203649 did not receive Refund transaction ID from CA within configured time limit (24hrs).Please check the order.  
  
Sincerely,  
HPStore Team.

**Solution:** Work with Ebay and SAP team to manually process this order.

CAAS Misc Credit Refund Transaction ID Failure

Dear CAASTeam ,   
  
CAAS refund transaction ID request failed. Please find the details of failed refunds below :  
  
ETR Order No.: M300208017  
CA Item No.: 233171  
Reason: M300208017 did not receive Refund transaction ID from CA within configured time limit (24hrs).Please check Invoice No: M300208017.  
  
Sincerely,  
HPStore Team.

**Solution:** Work with Ebay and SAP team to manually process this order.

CAAS Cancelled Refund Transaction ID Failure

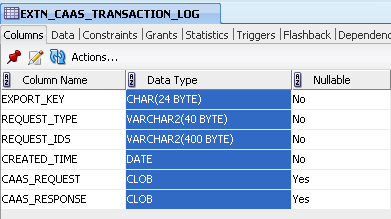
Dear CAASTeam ,   
  
CAAS refund transaction ID request failed. Please find the details of failed refunds below :  
  
ETR Order No.: H379000354  
Reason: H379000354 did not receive Refund transaction ID from CA within configured time limit (24hrs).Please check the order.  
  
Sincerely,  
HPStore Team.

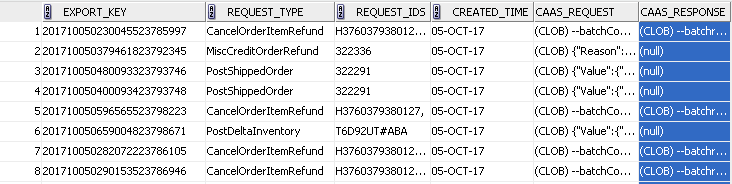
**Solution:** Work with Ebay and SAP team to manually process this order.

CAAS Log Tables

* + 1. EXTN\_CAAS\_TRANSACTION\_LOG

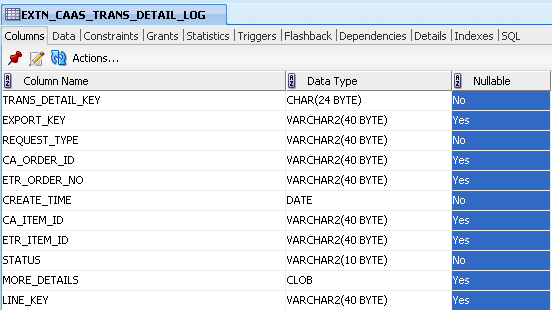
This table holds the request ids, request type, single/batch request and response of every service calls to CA.

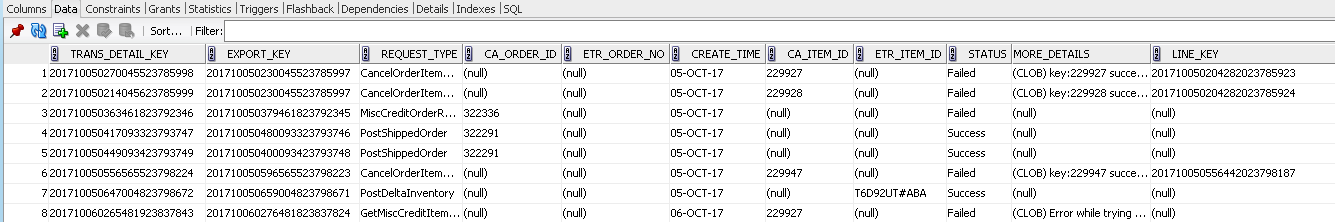


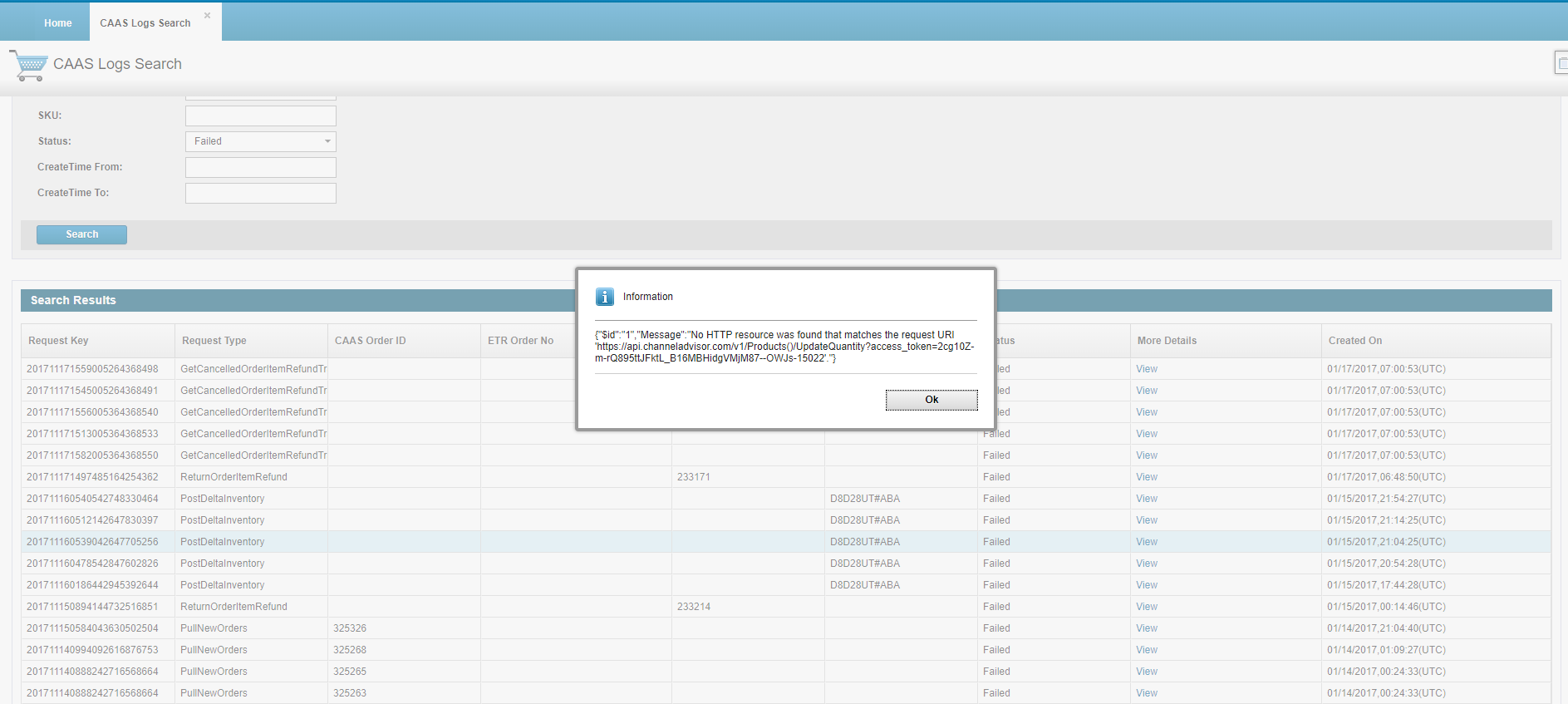


* + 1. EXTN\_CAAS\_TRANS\_DETAIL\_LOG

This table holds the details of every single requests to CA. It shows the request type, response status, specific request id and details of the error response from CA.

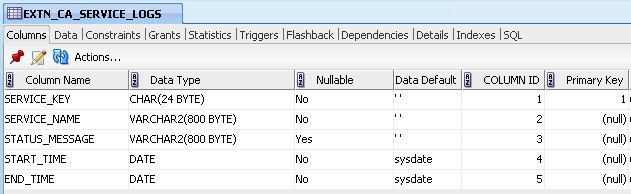


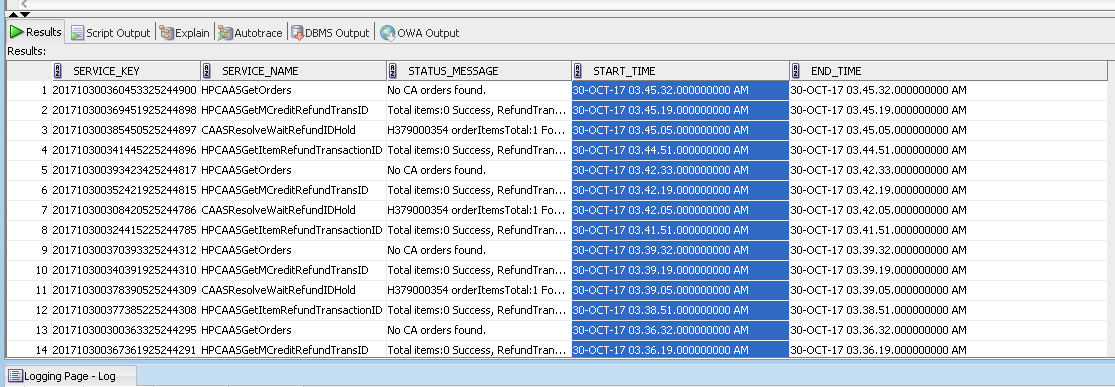




* + 1. EXTN\_CA\_SERVICE\_LOGS

This table holds the service name, status message, start and end time of 3rd party agent servers.





# Amazon Marketplace Integration

Scope

* Amazon orders to be created with payment type as credit card and card type as ‘Amazon’.
* There is no hold for amazon returns/misc. credit orders, invoice has to be send to SAP immediately same as ETR orders.
* Amazon orders should follow same as eBay catalog/order process except the variations stated above.
* CR: Marketplace orders should display promo details from catalog if not available in CA orders.
* CR: ETR should support mask inventory update for marketplace products.

## Assumptions / Decisions Taken

* There will be new marketplace entry created in MC with ‘Amazon’ as marketplace name.
* Amazon orders will have Entry Type as ‘Caas-Amazon’.
* Payment type will be Credit Card and card type is ‘Amazon’.
* Amazon order will have RMS only call without credit card details to PGS.
* PGS will have strategy in place to accept Amazon orders always.
* RMS Fraud is not allowed for Amazon orders same as eBay orders.
* If CA order does not carry promo details, catalog promo is displayed in OMS as instant promo discount.
* As amazon orders does not have card details such as last four digit, exp-date etc., OMS amazon orders will not have card details in payment table. TIBCO/SAP has to handle the orders without payment details.
* Amazon return/misc. orders will not have refund transaction id.
* Amazon orders will have same shipping methods as eBay (‘GROUND’, ‘2 Day’, ‘Standard Overnight’).
* Amazon orders will have site name containing ‘Amazon’ in it. Current design identifies the Amazon/eBay order based on site name.

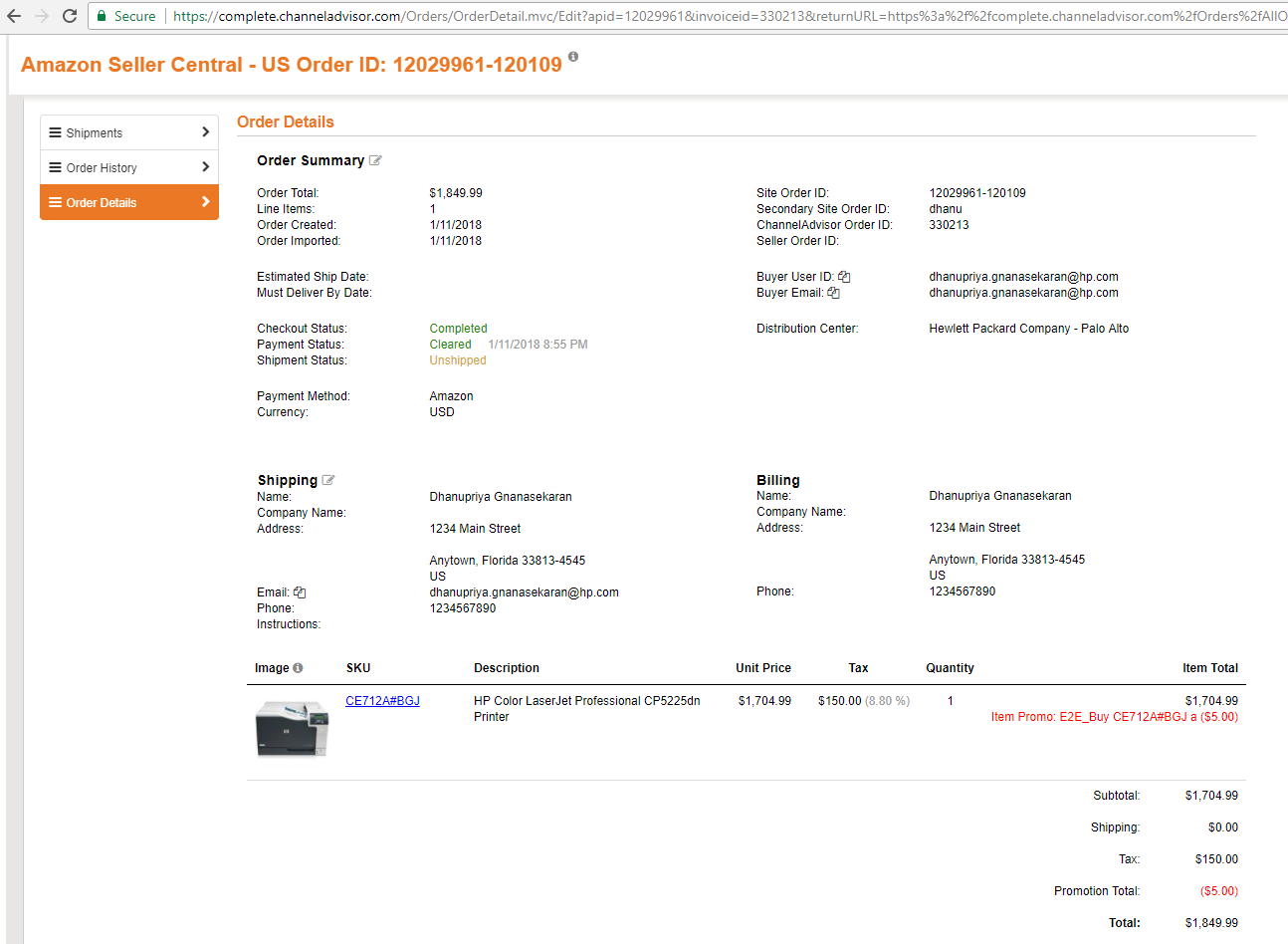
ETR Integration

**Only specific changes to Amazon and CRs are documented here. All other process will follow same as eBay order process flow.**

ETR identifies Amazon/eBay orders based on order’s site name.

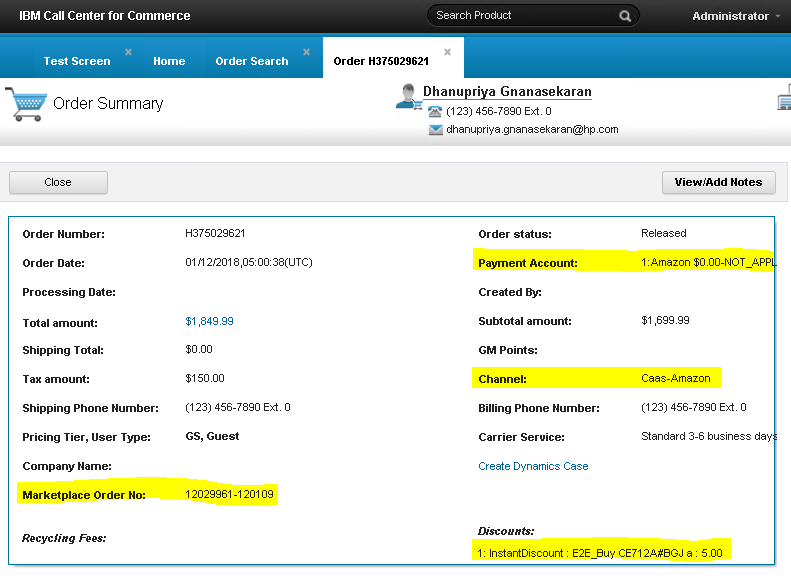
* + 1. Order Created in CA (by Market Place with promo)

Below is the screenshot of a sample CA order with promo details which we created by calling CA rest API.



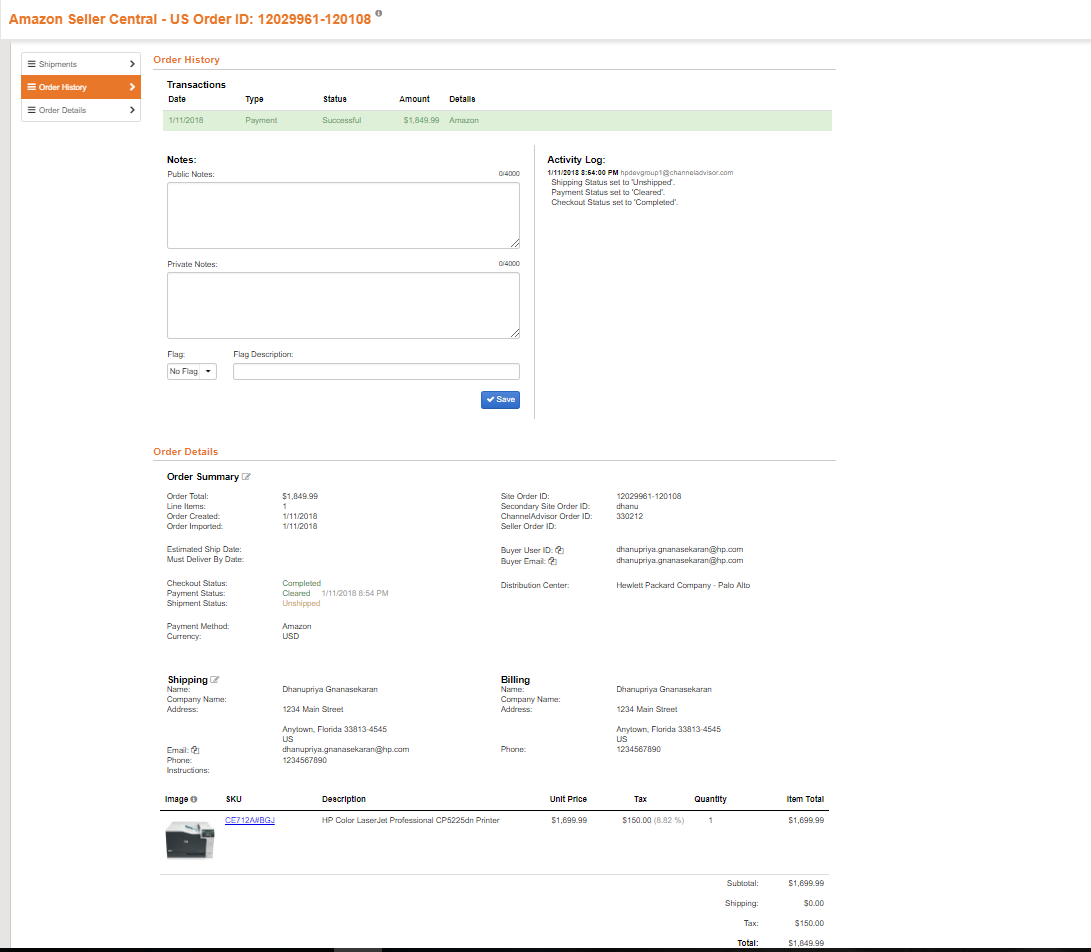
* + 1. Same CA Order Created in OMS (with promo)

The same CA order shown above is pulled in ETR and once all the validations & inventory checks are cleared, an order is created, scheduled and released in OMS successfully. Here the promos are taken from the CA order. A screenshot of a successfully released order is shown below from call center.



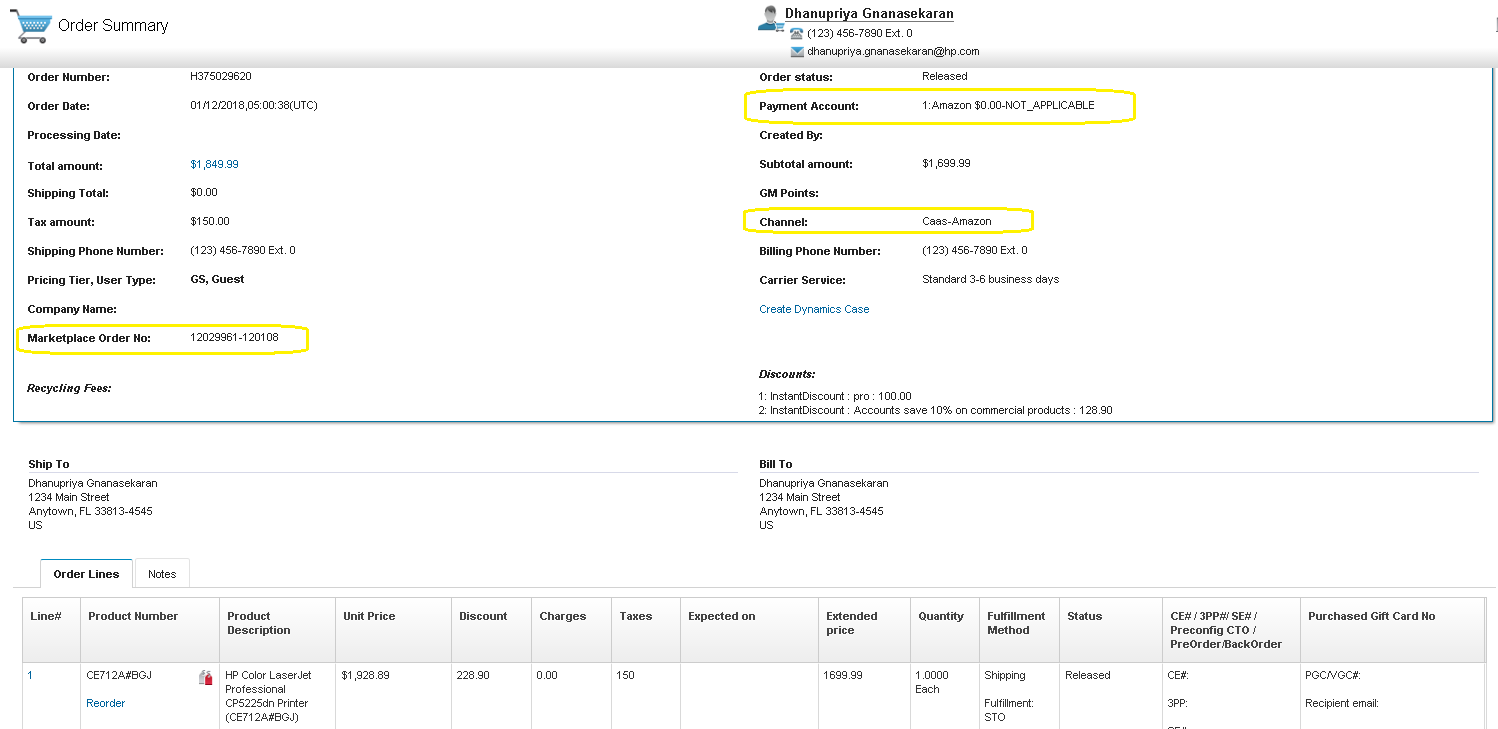
* + 1. Order Created in CA (by Market Place without promo)

Below is the screenshot of a sample CA order which we created by calling CA rest API without any promo.



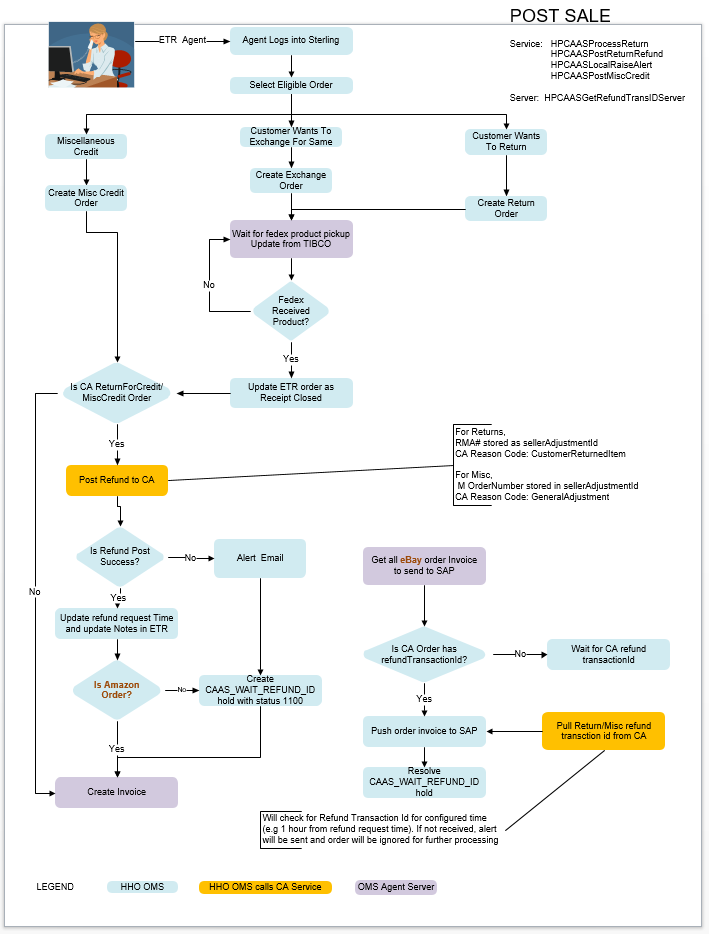
* + 1. Same CA Order Created in OMS (with promo)

The same CA order shown above is pulled in ETR and once all the validations & inventory checks are cleared, an order is created, scheduled and released in OMS successfully with promos applicable for Skus fetched from WCS. A screenshot of a successfully released order is shown below from call center.



## Post-Sale

There will be no hold for Amazon Post-Sale and Misc. orders. Order invoice will post to SAP immediately same as ETR orders.



* + 1. Refund Transaction ID Services

Not supported for Amazon orders.

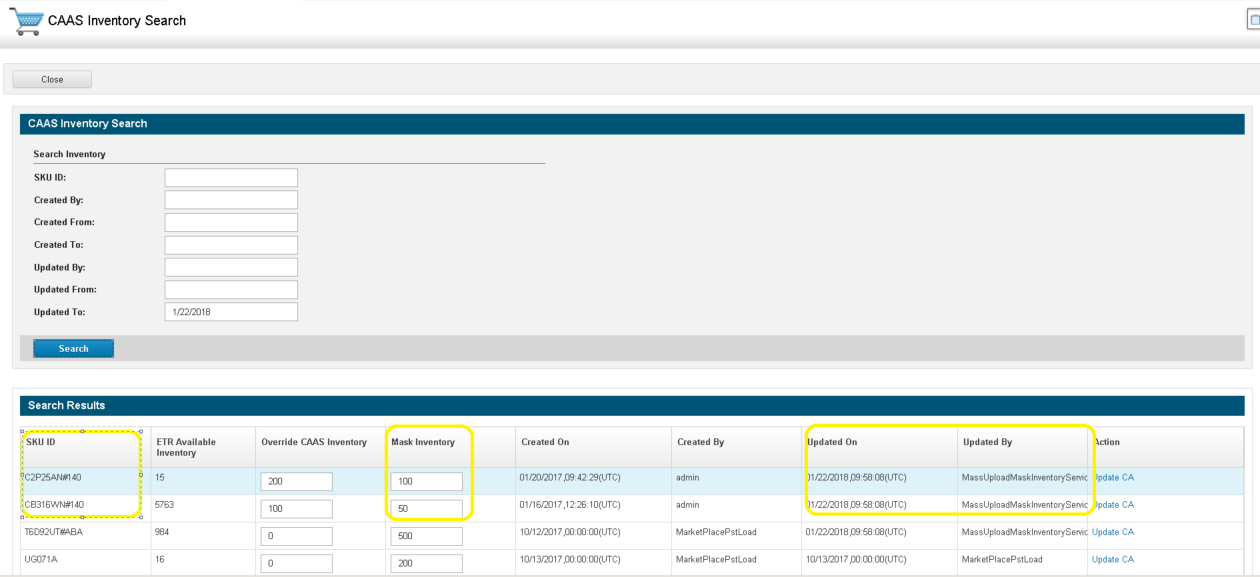
Inventory Threshold Mass Update

New scheduled agent HPCAASMassUpdateMaskInventoryServer runs every 10 minutes (configurable) and reads the csv input file inside /opt/apps/CAASMassUploadInv/in folder located in Agent server box. It updates the mask inventory of the input SKUs in Sterling database.

Sample csv input. Support team can check both server logs and EXTN\_CA\_SERVICE\_LOGS table to see whether the service is successful or not.



Agent can check the active input SKUs using CAAS Inventory Search and see the updated mask inventory.



## Files impacted

* + 1. Java classes

|  |  |  |
| --- | --- | --- |
| File Name | New File | Remarks |
| HPCAASPostCCKReturnRefund.java  HPCAASPostMCreditRefund.java  HPCAASPostReturnRefund.java  HPCAASPostSOrderRefund.java  HPConstant.java  IsCAASReturnMiscInvoiceValid.java | No | No Hold for amazon orders |
|  |  |  |